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Enhancing Drug Treatment Program Staff's Self-Efficacy to Support Patients' HCV Needs

SHIELA M. STRAUSS, PH.D.[Associate Professor],

College of Nursing, New York University, New York, NY, USA

CORRINE MUNOZ-PLAZA, MPH[Health Research Consultant],

Brooklyn, NY, USA

MARY T. ROSEDALE, PH.D., PMHNP-BC, NEA-BC[Assistant Professor],

College of Nursing, New York University, New York, NY, USA

DAVID M. RINDSKOPF, PH.D.[Distinguished Professor], and

Educational Psychology, Graduate School and University Center of the City University of New York, New York, NY USA

JOSEPH LUNIEVICZ, BA, RYT[Director of Training Institute]

National Development and Research Institutes, New York, NY, USA

Abstract

To increase HCV-related support for patients in substance abuse treatment programs, we implemented an on-site staff training in 16 programs throughout the United States. It aimed to increase participants' self-efficacy in assisting patients with their HCV-related needs. Findings indicate that participants' self-efficacy increased both 1- and 3-months post-training, resulting in providers' perceptions that they were better able to support patients regarding HCV. Implementing an engaging and interactive HCV training for social workers and other substance abuse treatment program staff has the potential to increase their HCV knowledge, self-efficacy, and the HCV-related assistance provided to patients both in the short- and longer-term.

Keywords

Hepatitis C; self-efficacy; substance abuse treatment; treatment program staff; training; hierarchical linear modeling; qualitative research

INTRODUCTION

Hepatitis C virus (HCV) infection, the most common blood borne infectious disease in the United States, has reached epidemic proportions among current and former drug users (Armstrong, Wasley, Simard, McQuillan, Kuhnert, & Alter, 2006). Many drug users have low health literacy (Lincoln et al., 2005), which is a robust correlate of negative health care knowledge, perceptions, and experiences among individuals living with infectious disease (Kalichman & Rompa, 2000). As a result of low health literacy and other factors, many drug users remain uninformed and misinformed about HCV (Strauss et al., 2007a), and are often stigmatized and unsupported by community-based health care providers in implementing primary and secondary prevention strategies (Schafer, Scheurlen, Felten, & Kraus, 2005;

Zickmund, Hillis, Barnett, Ippolito, & LaBreque, 2004). Substance abuse treatment program staff often provide effective support to their patients recovering from drug addiction, suggesting that these staff can be instrumental in assisting them with their infectious disease-related needs. However, staff in substance abuse treatment programs vary in the extent to which they provide HCV-related assistance (Astone-Twerell, Strauss, Munoz-Plaza, Hagan, & Des Jarlais, 2005; Strauss, Astone, Munoz-Plaza, Hagan, & Des Jarlais, 2005), highlighting the importance of examining ways to increase their level of HCV-related support.

To encourage and empower staff to provide more of this support, we developed an interactive “STOP Hep C Staff Training” program intended for on-site delivery at substance abuse treatment programs to all staff who provide direct patient care. In addition to covering current information about the virus, the training also taught and modeled motivational interviewing principles in order to effectively communicate HCV-related information to patients (Miller & Rollnick, 2002). More information about the content of the NIDA-funded STOP Hep C staff training can be found at http://www.cduhr.org/docs/reports/STOP_HepC_Training_Description_Feb07.pdf.

The training was especially designed to increase substance abuse treatment program staff’s HCV-related self-efficacy; i.e., their belief in their ability to organize and execute specific courses of action to support their patients’ HCV-related needs (Bandura, 1997). To assist training participants in improving this self-efficacy, the training incorporated essential elements of adult learning theory, stressed an active approach to skill development and maintenance, and included problem solving, modeling, rehearsal, and feedback (Bandura, 1997; Knox, 1990; Knox, 2000; Palmer, 1998). Because people tend to avoid activities that they believe they cannot carry out and undertake those activities they judge themselves to be capable of handling (Bandura, 1997; Ozer & Bandura, 1990), self-efficacy has been shown to be a strong predictor of performance in various occupational fields (Stajkovic & Luthans, 1998).

To our knowledge, no study has examined change in substance abuse treatment program staff’s HCV-related self-efficacy as a result of a staff training, nor have the consequences of any such change in self-efficacy been a focus of study. Some studies that have been performed in primary care settings have examined the impact of trainings versus controls on providers’ self-efficacy and have demonstrated an increase in this self-efficacy. Among the studies are those involving pediatric primary care providers trained to support the screening and counseling of adolescents for risky health behaviors (Buckelew, Adams, Irwin, Gee, & Ozer, 2008), and obstetricians and obstetrics staff trained to address pregnant women’s substance use assessment, management, and referral (Schumacher et al., 2000). In this paper we examine the training’s short-term (i.e., 1- month post-training) and longer-term (i.e., 3-months post-training) impact on substance abuse treatment program staff’s self-efficacy to support their patients’ HCV-related needs, using data collected from staff (N=275) in 16 substance abuse treatment programs throughout the United States who participated in the Stop Hep C staff training study. In addition, using data collected in individual qualitative interviews and focus groups with a subsample of staff who attended the training (N=102), we examine their perspectives on the contribution of knowledge about HCV gained in the training to a change in their HCV-related self-efficacy, as well as the consequences of this change in self-efficacy.

MATERIALS AND METHODS

Participating Substance Abuse Treatment Programs

A total of 16 programs participated in the STOP Hep C staff training study between 2005 and 2007. These programs included 2 methadone maintenance treatment programs (MMTPs) and 2 drug-free residential treatment programs in each of the four United States census regions (i.e., Northeast, South, Midwest, and West). To be eligible to participate in the study, programs needed to provide substance abuse treatment services on-site for 7 or more days to at least half of their patients. In addition, they needed to have patient populations especially at-risk for HCV infection (i.e., at least 20% of patients were drug injectors, crack smokers, and/or intranasal cocaine users). All participating programs had either taken part in our past HCV survey research, which documented the HCV services provided by substance abuse treatment programs throughout the U.S., or had been recommended to us by individuals who supported the provision of HCV services in substance abuse treatment programs.

Participating Substance Abuse Treatment Program Staff

In each U.S. census region, staff at one MMTP and one drug-free residential treatment program (“intervention condition programs”) received the STOP Hep C staff training immediately after completing quantitative baseline assessment instruments. One month later, all of these staff again completed quantitative assessment instruments, and then participated in a one hour “lunch and learn” booster session. In this mixed methods study, at the 1-month post-baseline time point, a total of 102 staff (at least 10 in each intervention condition program) were additionally involved in the study’s qualitative component. They participated in either a 1-hour semi-structured interview or a 90-minute focus group at their programs. Facilitated by an experienced qualitative researcher, these interviews and focus groups addressed staff’s perceptions of the strengths and limitations of the training, and the degree to which they were able to use the newly acquired information and skills. All participating staff in the intervention condition programs also completed quantitative assessment instruments 3-months post-training.

In each census region, an additional MMTP and drug-free residential program participated in the research (“control condition programs”). Staff in these additional eight programs completed quantitative assessment instruments at baseline and 1- and 3-month post-baseline, and received the training after all data had been collected.

Informed consent was obtained from all participating staff in both the intervention and control condition programs, with additional informed consent obtained from staff in the intervention condition programs who participated in the qualitative interviews and focus groups. The Institutional Review Boards of the National Development and Research Institutes, Inc. and New York University reviewed and approved all project instruments and consent forms.

Quantitative Survey Data Collected from Participating Substance Abuse Treatment Program Staff

Data collected at baseline from all participating staff included their personal and professional characteristics and past HCV training experience. Participants also completed a variety of assessments and scales, including a 10-item “HCV Self-efficacy Scale” (Strauss et al., 2007b). The research team developed this Scale using insights gained from our previous research, as well as those gained after speaking with managers in drug treatment programs and clinicians who provide care for drug users with HCV infection (Munoz-Plaza, Strauss, Astone, Des Jarlais, & Hagan, 2004; Strauss et al., 2005). Items on the Scale involved staff’s

confidence in discussing HCV-related issues with HCV+ and HCV- patients, helping patients deal with HCV-related ambivalence and denial, and responding to patients' HCV questions and concerns. For each item, respondents indicated on an 11-point scale the degree to which they felt confident, with 0=not confident at all, and 10=completely confident. A score on the Scale was obtained by summing the scores on the individual items. Previous analyses using data collected from 140 substance abuse treatment program staff in 3 drug-free residential treatment and 3 methadone programs in New York City showed the Scale to have a Cronbach's alpha of .95, and one factor explained 71.1% of the Scale's variance (Strauss et al., 2007b). Average scores on the individual items ranged from 4.8 to 7.2 (with standard deviations ranging from 2.4 to 3.1), and total HCV Self-efficacy Scale scores ranged from 0 to 100, with a mean of 62.8 (standard deviation 23.9), and a median of 66.0.

Examining the Short- and Longer-Term Impact of the Training on Staff's HCV-Related Self-efficacy

Using SPSS for Windows (version 18) for the quantitative analyses, we first examined whether the HCV Self-efficacy Scale scores at baseline differed significantly according to whether participants were in the intervention or control condition programs. We then used HLM software (version 6.0) to perform a hierarchical linear modeling analysis. In this analysis, with the outcome variable the HCV Self-efficacy Scale score at 1-month post-baseline, we examined the short-term (i.e., 1-month) impact of the training on participants' HCV-related self-efficacy. In particular, controlling for the Scale score at baseline, we examined whether being in an intervention or control condition program was a significant predictor of the HCV Self-efficacy Scale score 1-month post-baseline. Similarly, we performed a hierarchical linear modeling analysis for the Scale score 3-months post-baseline to examine the longer-term impact of the training on HCV-related self-efficacy, again controlling for the HCV Self-efficacy Scale score at baseline. In this latter analysis, we also examined whether being in an intervention or control condition program was a significant predictor of the score 3-months post baseline.

To better understand the factors that impacted on HCV-related self-efficacy post-baseline in the eight intervention condition programs, we also analyzed data collected in the individual qualitative interviews and focus groups with staff in these programs. An experienced transcriptionist transcribed all audio-taped and written interview data. Each transcript was then coded with a combination of coding categories predetermined by the research team, as well as with open-coding categories that emerged as the analysis proceeded. The use of ATLAS.ti software (Scientific Software Development GmbH: Copyright © 1991–2006) facilitated the analysis. Using the constant comparative method, these categories were then analyzed for the presence of themes and relational occurrences.

RESULTS

Sample Characteristics

A total of 275 of the 277 staff who took part in the study at baseline completed the HCV Self-efficacy Scale, including 149 in one of the eight intervention condition programs, and 126 in one of the eight control condition programs. In all, 40.1% of the sample was male. There was about an equal proportion of black (40.9%) and white (42.4%) staff, and 11.0% were Hispanic/Latino.

Participants held a variety of positions in their programs: 41.8% were counselors, 18.5% were administrators (including individuals trained in various clinical and non-clinical fields), 8.7% were social workers, 8.4% were nurses or nurse practitioners, and 1.8% were physicians or physician assistants; some had multiple roles (e.g., a medical director who was

classified as an administrator but was also a main attending program physician). The remaining participants held a variety of positions at their programs, including administrative support, health education, and various therapies (e.g., mental health, art). A total of 4.0% preferred not to disclose their positions. In all, over three quarters (77.0%) of the staff had worked in the field for at least 3 years, and more than half (57.9%) had worked at their programs for 3 years or more. About half (49.6%) of the staff had attended a training on HCV in the past, but this training had taken place more than a year ago for almost half (47.0%) of those with former HCV training experience. There were no statistically significant differences between staff in the intervention and control condition programs regarding their sex, race/ethnicity, length of time working in the substance abuse treatment field, tenure at their programs, or past HCV training experience.

Of the 275 staff, 246 (89.5%) also completed the HCV Self-efficacy Scale 1-month post-baseline and 236 (85.8%) also completed it 3-months post-baseline. As was true of the baseline cohort of 275 staff, for staff who completed the HCV Self-efficacy Scale 1-month and 3-months post-baseline, respectively, there were no statistically significant differences between those in the intervention and control condition programs regarding their sex, race/ethnicity, time working in the substance abuse treatment field or in their programs, or past HCV training experience.

Short- and Longer-Term Impact of the Training on HCV-Related Self-efficacy

There were also no statistically significant differences in the baseline scores on the HCV Self-efficacy Scale for staff in the intervention condition programs as compared with those in the control condition programs. This was the case whether examining scores for the entire cohort of 275 staff (62.2 vs. 60.0), the 246 staff who also completed the HCV Self-efficacy Scale 1-month post-baseline (62.9 vs. 60.9), or the 236 staff who also completed the Assessment 3-months post-baseline (64.8 vs. 59.8).

Table 1 reports the results of the hierarchical linear model analysis. After controlling for HCV Self-efficacy Scale scores at baseline, staff in the intervention condition programs scored significantly higher on the 1-month post-baseline HCV Self-efficacy Scale versus those in the control condition programs ($p < .001$). They also scored higher on the 3-month post-baseline HCV Self-efficacy Scale versus those in the control condition programs when controlling for baseline HCV Self-efficacy Scale scores ($p < .001$). It is noteworthy that these effects were large. For staff having the same score on the HCV Self-efficacy Scale at baseline, those in the intervention condition programs scored almost 14 points higher on the Scale 1-month post-baseline, and about 13 points higher 3-months post-baseline than those in the control condition programs.

Greater HCV Knowledge Increases Staff's HCV-Related Self-efficacy

In the focus groups and individual qualitative interviews, participating staff in the intervention condition programs often spoke about how their confidence and “comfort” in addressing HCV issues with patients was heightened as a result of an increase in their HCV knowledge. Many participants, especially social workers and counselors, expressed limited confidence in providing HCV-related support to their patients before the training. In speaking about her pre-training confidence, a social worker in a Northeast methadone program put it this way:

“I didn’t feel that confident. And just like about the facts about [HCV]. So, I didn’t really feel like I could advise somebody or that I always knew what they were talking about when they were using medical terms.”

Change in staff's confidence to support patients' HCV needs after participating in the training is reflected in the words of another counselor from the same Northeast methadone program:

"I always thought I had some basic level of confidence. But I would realize, the more the patients would bring to me and the more questions and confusing situations they would present, I was just as confused. I really didn't grasp it. I think I had a basic level of understanding. But any kind of intricate [situation], you know, then I was not too confident. So the training has given me a much better understanding of [HCV] so I can have that kind of conversation with clients."

To support their use and retention of information provided in the training, participants were given a set of HCV flash cards that summarized the training's main points. These "recipe cards" were contained in a 3" by 5" black "recipe box" that many participants found especially helpful in enabling them to retain and use their newly acquired HCV knowledge. Many of the participants spoke about the usefulness of the box, and how it increased their confidence as a result of having important HCV information close at hand when interacting with patients. A social worker in a Northeast drug-free program put it this way:

"[The training] gave me a little bit more confidence [in terms of dealing with hepatitis C.] I think that little box kind of like makes it really simple... and if you want more information, it's provided there."

Consequences of Staff's Increased HCV-Related Self-Efficacy in HCV Support for Patients

In the individual interviews and focus groups with participating staff in the intervention condition programs, participants spoke about how an increase in their self-efficacy in supporting their patients' HCV-related needs led to their perceptions of (1) the greater likelihood of their raising HCV issues more frequently with patients, (2) the increased frequency and depth of questioning of patients concerning HCV, (3) their improved ability to answer patients' HCV questions and to support their HCV-related emotional needs, (4) their heightened interest in educating large numbers of their patients about HCV, and (5) more effective HCV-related communication with patients.

Raising HCV issues more frequently with patients—Some staff described how their limited pre-training self-confidence prevented them from bringing up the topic of HCV with their patients. A social work case manager in a Midwestern drug-free residential treatment program states:

"I wasn't too comfortable [raising issues about HCV with patients] because I didn't know the answers. I didn't have many answers to any questions they might have asked. So how would I look bringin' something up and asking them about something when I don't have the answers to it?"

After the training, with increased confidence to address HCV concerns, some staff spoke about their openness to making HCV issues a priority and their perceptions that they initiated discussions about HCV more frequently with patients, especially in the context of other health issues. A counselor at the Midwestern drug-free residential treatment program describes anticipating that the training that he received will enable him to raise HCV issues with patients who will need support:

"Some day I probably will have a client that has some natural defensive mechanisms that prevent 'em from seeing the truth. I think with workshops like this, it makes me a more flexible counselor to be able to help that person. To bring it out, whatever they need to discuss. So the more information we have, and the more we understand it, the more we can present it to the person in such a way that

the patient should be able to understand it and be more open [to] treatment, if necessary, or just general discussion.”

Increasing the frequency and depth of questioning of patients concerning HCV—In addition to feeling more empowered to raise the topic of HCV with patients, some staff described an increase in their confidence to ask specific questions of patients concerning HCV. Referring to clients she worked with since receiving the training, a social worker at a Southern drug-free program indicates:

“I was able to ask more pointed questions of the treatment they’d undergone.”

Some staff felt that they could now ask their patients whether or not they had been tested, and if they tested positive, how they are doing, and what resources they would find helpful. The director of a Western drug-free residential treatment program states:

“[After the training] I knew what questions to ask them. Just to find out what they were doing to address it. If they knew what genotype [they had] (which I had no clue about before). And some of them had no clue. They knew they had [HCV]. And some knew exactly what was going on. [Before the training] I wouldn’t have asked them anything. I would have just taken their name down, basically. Because there was a level of discomfort there where I felt like if I engaged in a conversation, I didn’t have the right information to give them.”

The clinical supervisor in the same program also identified a variety of questions to ask patients:

“Now I feel a little bit more comfortable with actually talking about[HCV] with clients and trying to help them maybe find referrals; making sure they see their doctor; asking them how are they eating? How are they sleeping? Just in general, just trying to help them maintain their health. And just ask them, were you Hep C? Did you test positive? When we did the test, did you take the test? If you took the test, did they say you were positive or negative? And if they were positive, then what that actually means. The people that I knew that were Hep C, I would ask them every now and then. You know, but I find myself asking them more now. And just in general, what do they know about it? I’ll ask them and we’ll have conversations. I talk about it a lot more now because I’m more comfortable with it because I know a little bit more.”

Their ability to answer patients’ HCV questions and to address their HCV needs—Many staff indicated that they felt much more confident to answer patients’ questions about HCV. A counselor in the Western methadone program put it this way:

“The hepatitis screen now, I mean, I had somebody recently where that took almost the whole session going over. And I felt much more confident in doing that and answering, and I actually felt like I could answer the questions that they were asking. And before [the training], I was just kind of going through it so fast and just checking off the boxes. And I mean, I just never felt comfortable doing it. [After the training] I felt like they could ask questions of me. [One of my patients and I] were able to have more of an open discussion about what the risks might be for her. And I felt that she had more confidence in me being able to answer some of the questions that she had.”

In addition to responding to questions seeking information about the virus, many staff described encounters that they felt enabled them to provide emotional support to their patients in a way that they could not have done before the training. A social work case manager in a Northeast drug-free residential treatment program said:

“Well, she just took the liver biopsy test. And she was going through a lot of feelings about taking the test. I just gave her information, you know, that for people who do take the medication, there’s a high percentage that they do get rid of the virus. So, now I can give her some type of information. At least I was able to help her while she was going through her emotional distress. Because before the training, I would have been lost. You know, at least I wasn’t lost.”

Other staff spoke about how their increased knowledge and accompanying self-confidence enabled them to avoid missing an opportunity to address patients’ HCV needs. For example, a case manager/counselor in a Southern drug-free residential treatment program states:

“I do the biopsychosocial, and I ask them if they have any health issues. And if somebody says Hep C, that’s my door that’s open to say, if you have any questions let me know. When they first come in, they are so beaten up and so tired. The majority of ‘em, that they’re ready to tell me anything. And when they get comfortable like that, it’s very important to make them feel welcome, because they’re overwhelmed. And when they want to ask the questions with Hep C, I get out my little black [“recipe”] box now. Oh, what is Hep C? How can I get it? What about the medical procedure? And then I explain about our doctor here, you know, and most important about confidentiality. And they get so relaxed that they’re comfortable. They wanted to get it out so bad, they didn’t know what to say. And being one of the first interacted people, it opens up their recovery. It’s very important.”

Similarly, a counselor in a Southern methadone program describes an opportunity to prevent a patient’s needs from “slipping through the cracks:”

“I think the client usually, if they’re really comfortable with their counselor, they may not feel comfortable talking to the PA [physician assistant] and that information may be lost. You could refer them. Maybe you should talk to the PA about it. And then they’ll be like, alright, well, forget it; they don’t know. They may not feel comfortable. So that could be just right there information lost, that they would never get because they wouldn’t take the extra step to go see the other person. Whereas they see me, I can give them that information. If they trust me as their counselor, then they’ll be more likely to get it.”

In fact, many of the clinical staff indicated that their increased self-confidence enabled them to provide support to address their patients’ HCV needs rather than just providing them with literature, or automatically referring these patients to a support group, another patient with HCV, or, more typically, a medical provider. The project manager/coordinator in the Southern drug-free residential treatment program relates how she was able to guide a patient who had just tested positive for HCV:

“Going through the whole thing of the [“recipe”] box and every step that we take; and I’m like, well, if they say [a certain thing], then the first thing you ask for is a liver biopsy. I’m just rattling on and on and on like I really did this a long time. But I learned. I mean... I couldn’t believe it. So now he’s back and forth with me, telling me what’s going on. They’re testing the blood for the enzymes and all this stuff like that. It was really great. Because before this training I didn’t know anything about it. I would have referred him to the doctor here.”

Increased interest in providing HCV information to groups of patients—Some of the counselors and clinical health educators described their intention (or actual experience) incorporating HCV education in their addiction recovery groups. Some indicated that providing HCV education was as important as providing education on HIV,

and were confident in their ability to provide this education with the support of the “recipe cards” as education tools. For example, the health educator in a Midwest methadone program relates:

“I used [the recipe box] for the training I do here every other Monday. Probably about eighty percent of the people that come through this program have hepatitis. They don’t even know what they’re living with, you know. If they have questions that I might not think of off the top of my head, I have that there for reference.”

Similarly, a counselor in the Midwest drug-free residential treatment program indicates:

“I’m more confident discussing it. I know that I’ve already brought it up in group, and about the importance, you know, with the IV drug use, how important that is.”

More effective HCV-related communication with patients—In addition to providing up-to-date information about HCV, the training also focused on how to best communicate with patients about the virus. Describing how his confidence was improved as a result of the training, a counselor in the Southern methadone program refers to how the information was presented in the training:

“So, not just learning it, and it was good information and I liked the way it was presented, but the ability and the confidence to translate it,”

while a nurse practitioner in the Western methadone program describes how it assisted in:

“...being able to put it more in clients’ terms; breaking it down into simpler terminology.”

The communication approach taught in the training emphasized motivational interviewing techniques and strategies. A counselor in the Northeast methadone program indicates how this approach assisted him:

“One of them [people on my caseload] has a Hep C issue. And I certainly can say that since the training I have tried to think about the little bit that he’s going to talk about in a different way. And try and understand it in terms of that motivational interviewing model. And think about how to encourage him to consider getting a liver biopsy. That’s his issue. I guess it just made me feel a little bit more comfortable to try and, you know, talk with him about that.”

The psychiatric nurse practitioner in this same program put it this way:

“I think most of us, if we’ve been trained in this modality, we get very involved with the patients, and we naturally want what’s best for them. And there are times that we are guilty of almost trying to convince the patient to do what we know is right. We really have to take care of your medical needs. You really need to do this. When are you gonna go? We’ll help you make an appointment. Which, in turn, does turn off a lot of patients. Like, I don’t even want to see her because she’s gonna try to convince me to do something that I’m not ready to do. So, I think this brought to mind again just how important it really is, to kind of roll with the resistance and have the patient view you as being non-threatening. Like okay, I hear what you’re saying. You’re not ready right now to have a doctor’s appointment to do this, to do that; but just know that in a couple of weeks, if you feel like you’re ready to do this or you want to pursue it further, I’m always here for you. Instead of come on, you really need to do this. You’ve taken care of everything else; let’s do this now.”

DISCUSSION

Consistent with the research of others (Buckelew et al., 2008; Martin et al., 2003; Schumacher et al., 2000), our findings support the ability of a training to increase staff's self-efficacy to support the needs of those individuals that they serve. Notably, through its focus on skill development, modeling, rehearsal, and feedback (Bandura, 1997), the STOP Hep C staff training had as one of its main goals increasing participants' HCV-related self-efficacy. Our analyses demonstrate that staff's self-efficacy not only increased shortly (i.e., 1-month) after the training, but that this increase in self-efficacy was maintained 3-months post-training.

Many social workers and other staff referred to an increase in the HCV knowledge that they gained in the training as especially salient in their greater self-confidence and "comfort" in addressing patients' HCV needs. Our past research demonstrated that substance abuse treatment program staff's HCV knowledge is often limited (Strauss et al., 2006). The gain in HCV knowledge that the staff experienced as a result of the training appeared to be especially empowering. The HCV "recipe cards," which put important summarized HCV information 'at their finger tips,' enabled staff to retain their confidence in addressing HCV issues with patients.

Notably, staff's increase in HCV-related self-efficacy manifested in changed staff behaviors. Staff spoke about how greater self-confidence resulted in their perceptions that they raised the issue of HCV more frequently with patients, asked them more questions, were better able to answer their queries, supported their HCV-related emotional needs, and incorporated HCV education into their addiction recovery groups. There were many examples of such changes in all of the participating intervention condition programs. In view of the stigma that current and former drug users often experience from community-based providers when they seek health care (Schafer et al., 2005; Zickmund et al., 2004), it is encouraging to know that patient-sensitive support for HCV-related needs in substance abuse treatment programs has the potential to increase so substantially as a result of the STOP Hep C staff training.

We acknowledge several limitations to the research. First, although both methadone maintenance and drug-free residential treatment programs throughout the U.S. were included in the research, our results may not be generalizable to other U.S. substance abuse treatment programs or to those outside of the U.S. Second, other aspects of the training, although not identified by training participants, may have also supported an increase in their HCV-related self-efficacy, and there may have also been other perceived consequences of increased HCV-related self-efficacy that were not noted by the participants. We note that statements from patients regarding the receipt of increased HCV-related support would be needed to corroborate these staff perceptions. Finally, although optimally delivered as a trainer-delivered HCV training, present economic realities make it unlikely that there will be resources to widely support an on-site, trainer-delivered staff training at substance abuse treatment programs, no matter how effective the training. To make the essential training components more accessible to a greater number of substance abuse treatment program staff, the STOP Hep C staff training is now being adapted to an engaging and interactive computer assisted instruction (CAI) version to teach the HCV information. Future research will determine if the CAI version will also lead to this increased HCV-related self-efficacy or if only an on-site, interactive training can generate greater self-efficacy that is likely to lead to more HCV-related support by social workers and other staff for patients who are in such great need of this assistance.

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Table 1
Hierarchical Linear Modeling Results for 1-Month and 3-Months Post-Baseline

HCV Self-Efficacy Scale Scores: Coefficients and Standard Errors

Variable	1-month post-baseline^a	3-months post-baseline^b
Intercept	23.4 (4.17) ***	30.0 (5.29) ***
HCV Self-efficacy (baseline)	.633 (.056) ***	.558 (.066) ***
Intervention condition	13.9 (1.77) ***	13.2 (2.20) ***

^aN=246

^bN=236

 p <.001