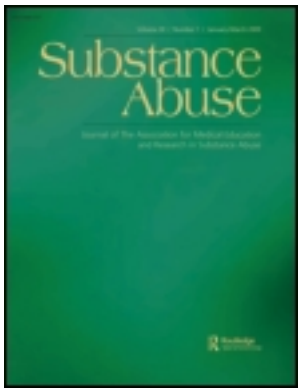

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A New Paradigm for Long-Term Recovery

Robert L. DuPont MD [a] & Keith Humphreys PhD [b]

[a] Institute for Behavior and Health, Inc., Rockville, MD

[b] Veterans Affairs and Stanford University Medical Centers, Stanford, CA

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EDITORIAL

A New Paradigm for Long-Term Recovery

Typical treatment for substance use disorders (SUDs) in the United States is a few weeks of outpatient counseling with no biological testing for substance use, no use of contingency management, and no medications. Given that these disorders are characterized by lifelong risk of relapse, it is not surprising that many treatments yield suboptimal outcomes for a significant portion of patients, including many who relapse quickly after or even before treatment has ended (1).

Interventions that work for addiction:

1. Endure for months or years rather than for weeks
2. Carefully monitor use of alcohol or other drugs of abuse
3. Include swift, certain, and meaningful consequences for use and nonuse of substances

We profile three innovative care management programs that have these characteristics, namely Physician Health Programs (PHPs) and two therapeutic jurisprudence programs that have been labeled "Smart Justice": South Dakota's 24/7 Sobriety Project and HOPE Probation. We highlight similarities of these programs to two well-known interventions with significant power to produce long-term recovery: 12-step and other community support organizations and methadone maintenance.

These three new programs actively and intensively manage the environments in which people with SUDs make decisions to use or not to use addicting drugs—including alcohol. Formal substance abuse treatment and 12-step organizations are often part of these experiences but they are separate from the monitoring and consequences that are at the heart of these interventions and that distinguish them from the common experiences of people with SUDs.

The programs this editorial discusses validate our premise (which may appear to be radical) with strikingly different populations. These examples show why a new paradigm for care management that promotes long-term recovery should be widely adopted, including in the comprehensive care model envisioned for the coming decade in health care reform.

PHYSICIAN HEALTH PROGRAMS

Led by a remarkable group of dedicated physicians, PHPs began with the support of the American Medical Association (AMA) four decades ago (2). Unlike typical managed care, PHPs do not attempt to achieve the lowest cost. Instead, while remaining sensitive to costs, they do whatever is necessary to get the best long-term outcomes. Although each of the state PHPs is unique, there is a core strategy that is shared by all of them. Together, they have set the standard for long-term care management, achieving truly revolutionary outcomes for the SUDs (3).

PHPs provide a safe haven for physicians whose careers are at risk due to SUD-related problems. In return, physicians sign contracts, typically for 5 years, stipulating that they will adhere to the care management of the PHP, including completing treatment and submitting to intensive random monitoring to ensure that they remain abstinent from any use of abusable drugs including any use of alcohol. Abstinence is monitored with frequent random drug testing using flexible test panels of 20 drugs or more. Monitoring also often includes ethylglucuronide (EtG) and/or ethylsulfate (EtS) testing to better detect recent alcohol use. Although the PHP treatment plans are specific to each individual physician, virtually all participants are expected to be active in 12-step or similar community support programs throughout the period of monitoring. PHP care management usually lasts 5 years or longer. When physicians relapse to any use of drugs or alcohol or show any other evidence of noncompliance with program requirements, the PHP intervenes immediately, typically removing the physicians from medical practice to put them into extended treatment followed by more intensive monitoring.

The PHPs do not themselves provide treatment. Instead they are care managers selecting and overseeing treatment, including the treatment of coexisting conditions. The PHPs select the treatments that deliver the best results. Typically the treatment recommended at the beginning of PHP care is for 30 to 90 days of residential treatment or 90 days of intensive outpatient treatment. Monitoring is random so that on each work day, the physicians call a designated phone number or login online to find out if they must report for testing that day or not. At the start of PHP care, they are tested once or twice a week, whereas later in the program, after prolonged periods of verified abstinence, they may be tested only once a month. However, in this random testing system, physicians can be tested on any day, even if they were tested the day before. The monitoring lasts as long as the physician is under PHP care. Many physicians request continued monitoring even after their contracts expire to promote and document their abstinence.

Unlike most substance abuse treatment programs, almost all of the PHPs are led by physicians who have direct day-to-day responsibility for the operation of their programs. These physician-program leaders are members of the Federation of State Physician Health Programs (FSPHP), which promotes cooperation as well as competition and innovation to achieve the best results for their health professional participants.

A chart-review study of a single episode of PHP care involving 904 physicians admitted to 16 PHPs found that 88% met diagnosis for substance dependence, whereas 10% met criteria for alcohol or substance abuse (3). The remaining 2% were physicians who had previously completed one PHP contract and volunteered to sign another to extend monitoring. Of the 802 physicians seen for 5 years or longer at end of this episode of care, 64% had completed their monitoring contracts, 16% either extended their contracts or voluntarily signed new contracts, and 28% had not completed their contract and were no longer being monitored (4). Of the physicians who completed or extended their contracts, 81% had no relapse and abstained from drugs and alcohol for the full length of monitoring. Of the 19% who had at least one positive drug test, only 26% had a second positive test over the 5-year duration. Over the period of monitoring of these physicians, only 0.5% of all tests done on this high-risk substance-abusing population were positive for either alcohol or for other drugs of abuse (3). In other words, 99.5% of tests were negative. At last contact, 78% of all physicians were licensed and working as physicians; 4% retired or left the practice of medicine; 11% had their licenses revoked; 3% unknown (4). The PHPs offer drug- and alcohol-using physicians the opportunity, motivation, and support to achieve long-term recovery, using all three of the strategies found in the new paradigm: monitoring, treatment, and the 12-step programs.

Critics of generalizing from the PHP experience argue that physicians are an unrepresentative patient population because they are highly educated and have abundant resources including the best health insurance. In response, we investigated two programs that have adopted related innovative abstinent-oriented monitoring strategies with success in the criminal justice system (CJS). Among all substance abusers, the CJS population has some of the heaviest drug users,

traditionally with the poorest prognoses. Substance abuse in the CJS also creates unusually high societal costs. These two CJS programs reduce recidivism and reduce incarceration while reducing nonmedical use of drugs and alcohol. Unlike PHPs, they are severely constrained in their funding for both monitoring and treatment.

HOPE PROBATION

Hawaii's Opportunity Probation with Enforcement (HOPE) manages convicted felons most of whom are identified as likely to violate their conditions of community supervision (5). The most common drug problem in this population is smoked crystal methamphetamine, although many offenders are dependent on other drugs of abuse including intravenous opiates. In the HOPE program, probationers are initially informed by the judge about the rules, including that they are subject to intensive random drug testing in a program similar to that used by the PHPs. Detected violations of probation, including any drug or alcohol use, missed drug tests, and missed appointments, are met with certain, swift and short-term incarceration. A hearing with the judge is usually held within 48 to 72 hours after incarceration.

Unlike PHPs and drug courts, which put all participants into intensive and often prolonged treatment, HOPE uses "Behavioral Triage" to assign patients to treatment. On entering HOPE, probationers are asked if they want substance abuse treatment to help them meet the requirement of abstinence from any use of alcohol or other drugs. Only a small percentage of probationers at the outset choose to participate in treatment. The remaining majority of offenders are monitored without treatment. Most probationers who fail monitoring are then referred to treatment. About 85% of HOPE probationers complete the program—which can last up to 6 years—without substance abuse treatment. In a 12-month period, 61% of HOPE had zero positive drug tests, 20% had one positive drug test, 9% had two, 5% had three, and less than 5% had four or more (5).

A randomized controlled study compared probationers assigned to HOPE ($n = 330$) to individuals assigned to standard probation ($n = 163$) (5). After 1 year, HOPE probationers were 55% less likely to be arrested for a new crime, 72% less likely to use drugs, 61% less likely to miss appointments with their supervisory officers, and 53% less likely to have their probation revoked than standard probationers. HOPE participants were sentenced on average to 48% fewer days of prison than standard probationers. The HOPE program demonstrates the efficacy of using intensive random drug testing linked to immediate sanctions for any substance use or other infraction of the conditions of probation. HOPE, unlike the PHPs, does not mandate 12-step program participation. However, probation officers typically encourage 12-step participation and many HOPE probationers do participate in these fellowships or similar community support programs.

SOUTH DAKOTA'S 24/7 SOBRIETY PROJECT

The South Dakota 24/7 Sobriety Project serves Driving While Intoxicated (DWI) offenders, nearly half of whom (48%) have three or more DWI convictions (6). Like the PHP and HOPE programs, 24/7 Sobriety uses intensive alcohol and drug testing. However, in order to accurately monitor alcohol use (the initial focus of the program and the principle drug of abuse among DWI offenders), participants must either undergo twice-daily alcohol breath tests, conducted at a local police station, or must wear continuous transdermal alcohol-monitoring bracelets. Participants also are subject to regular drug urinalyses or must wear drug patches to detect drug use. Any positive test for alcohol or other drugs results in an immediate short-term stay in jail; all missed appointments result in immediate issuance of arrest warrants (7).

The results from 24/7 Sobriety are impressive (8). Of participants subject to twice-daily alcohol breath tests, 66.6% were fully compliant with the program requirements, never missing a test or providing a single positive sample; 17.1% failed only once, and 9.7% failed only twice. Of participants subject to transdermal

alcohol bracelet monitoring, 78% fully abstained from alcohol use. It is striking that the vast majority of all tests given on any particular day were negative: 99.6% of twice-daily alcohol breath tests, 98% of urinalysis tests, and 92% of drug patches. Recidivism statistics which are available for twice-daily tested offenders show considerably lower recidivism rates for second time, third time, and fourth time DWI offenders in 24/7 Sobriety after they leave the program compared to control offenders (9). The 24/7 Sobriety Project demonstrates the effectiveness of innovative monitoring strategies to reduce substance use among a high-risk population; however, a rigorous, randomized evaluation of the program is needed (7). As in PHPs, these offenders are required to obtain some treatment as a standard condition of probation, just like other DWI offenders. However, the treatment typically is limited to outpatient care and varies widely in quality. Like HOPE Probation, participation in the 12-step programs is encouraged but not required.

The experiences of HOPE and 24/7 Sobriety demonstrate the central role of the intensive monitoring of alcohol and other drug use with swift and certain consequences for any substance use. They also demonstrate that these strategies can be applied successfully to populations quite different from physicians. The use of treatment and the 12-steps is less systematic in these two CJS populations than it is in the PHP care management, but both are used.

One distinctive feature of these three interventions is the intense leverage that is used to sanction substance use and to reward abstinence. In the case of the PHPs, the leverage is the threat of removal from practice and ultimately the loss of the physician's medical license; the reward is continuing to practice in a prestigious and well-paid profession. For HOPE and 24/7 Sobriety, immediate brief incarceration is the sanction and freedom in the community is the reward. There are many other settings where similar significant leverage exists, most notably in workplaces and schools. Commercial pilots and lawyers have established programs in the model of the PHPs. Leverage can also be exercised in other settings including families. An important challenge to address is finding ways to use leverage to reinforce abstinence among patients with substance use disorders in a variety of health care settings.

Although the PHPs are established programs that have been in existence throughout the country for decades, the two criminal justice programs have been studied only in their original program locations. They are now being widely extended to other programs. The data we report on PHP and HOPE programs covers only the duration of active monitoring. Neither has been evaluated by studying the participants after they leave the programs, leaving open the question of the durability of their outstanding results recorded during program participation. Nevertheless, the evaluations now available cover periods of time far longer than most treatment, including evidence of more than 5 years of total abstinence achieved by most PHP participants.

Mandatory abstinence used in this new paradigm contrasts sharply with programs that make treatment mandatory but do not impose meaningful consequences for any continued substance use. The two programs for offenders sharply contrast with the far more common approach in the criminal justice system where consequences for noncompliance, including continued substance use, are long delayed, uncertain, and when applied are—often after many violations—draconian. The "abstinence first" approach used by these three programs does, however, resonate with many successful family experiences in which it is only when the family forcefully and unequivocally rejects the substance use and imposes stiff consequences that the user abstains.

Further, this paradigm of monitoring and swift and certain consequences not only does not conflict with substance abuse treatment but it also makes treatment more effective by reinforcing both retention in the program and the insistence on abstinence. Speaking as clinicians, both of us would love to have in our practices individuals with SUDs who were being monitored in 24/7 Sobriety or HOPE Probation. Treatment programs working with patients from these three programs report that their success rate with these patients far exceeds their success with patients

in the same treatment programs who are not subject to this active and prolonged environmental management.

Many individuals in these three programs participate in mutual help organizations such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) (10). Among their unique features, and central to our point here, is the possibility of lifetime involvement with the 12-step and similar organizations. The option of long-term participation is starkly different from most addiction treatment, except methadone maintenance. These fellowships offer individuals an entirely different way of life that provides many rewards for abstinence (i.e., changes the contingencies in the environment for substance use). Although they do not conduct biological tests, these fellowships do provide monitoring in that if there is any group that it is hard to hide a relapse to substance use from, it is probably a roomful of recovering addicts.

Methadone maintenance is the treatment modality with the strongest evidence of effectiveness for opiate addiction (11), and methadone treatment is open to prolonged even lifelong participation. It deserves a place in the paradigm to the extent that methadone programs require abstinence from the use of alcohol and other drugs used nonmedically. High-quality methadone programs test patients regularly for alcohol and illegal drug use, employ strong and unambiguous contingency management techniques in response to any alcohol or drug use, and encourage long-term participation. These high-quality programs use continued access to methadone to leverage abstinence from all nonmedical drug use, a standard that is reinforced by intensive drug testing linked to swift and certain consequences for any violation. Methadone programs commonly build in structured rewards for abstinence from the use of alcohol and other drugs, including provision of take-home doses, which makes treatment participation more convenient.

This contrasts with the pattern among some methadone programs today that do little or no drug testing and are not concerned in any meaningful way with continued alcohol and other drug use, relying instead on the hope that with some methadone, heroin addicts will use a bit less heroin and commit somewhat less crime. That permissive type of methadone program may affect those indicators modestly, but those programs do not start many people on the pathway to recovery. We make the same criticism of methadone clinics that rush patients off of methadone and dump them back into the community with no monitoring and no support.

This new way of managing patients with SUDs leads to the rethinking of the "disease model" of addiction, particularly the view that relapse to alcohol and drug use is an essential feature of the disorder. This new approach also shifts the focus of hope away from exclusive reliance on finding new biological treatments. The innovative programs we have discussed show that the key to long-term success lies in long-sustained changes in the environment in which decisions to use and not to use are made. This new perspective on SUDs extends the decades long and scientifically productive exploration of the brain biology of addiction by pointing out that the most hopeful strategy for enduring behavior change lies not in the manipulation of brain biology but in actively managing the environment in which decisions to use and not to use drugs is made.

If the drug-dependent person's environment passively or actively rewards substance use rather than abstinence, then use is likely to continue. If the environment not only prohibits return to use, but enforces this prohibition with swift, certain but not necessarily severe consequences and enforces this standard with intensive monitoring, alcohol and drug use stops, even for many—but not all—seriously dependent individuals with long histories of substance abuse. Most current substance abuse treatment is not capable of accomplishing this standard and is thus a poor use of the payers' money and the patients' time and energy. For this reason, this new paradigm points the way to a far more cost effective way to manage SUDs under health care reform.

CONCLUSION

The best medical care for addicted people is found in programs that endure for an extended

period, carefully monitor substance use and stop nonmedical drug–using behavior by actively managing the consequences for any continued substance use and by rewarding abstinence. A critical advantage of the three programs reviewed here is that, unlike most contemporary addiction treatment, they persist long enough to promote lasting change. Further, these community-based programs all rigorously monitor substance use and link it to swift and certain rewards for abstinence and penalties for use. Our review of these programs suggests that the best outcomes are achieved by using many recovery-promoting elements in a coordinated system of extended care management.

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Robert L. DuPont, MD
President, Institute for Behavior and Health, Inc.
Rockville, MD

Keith Humphreys, PhD
Veterans Affairs and Stanford University
Medical Centers
Stanford, CA

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