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Chapter 15
The Physician Health Program: A Replicable Model of Sustained Recovery Management

Gregory E. Skipper and Robert L. DuPont

Abstract Physician Health Programs (PHPs) in the USA have evolved over the past 3 decades as models of recovery management. They encourage early referral, sophisticated evaluation, and active long-term monitoring and care management of troubled physicians, especially those with substance-related disorders. There are many benefits to these unique programs. Early detection of potentially impaired physicians not only protects patients but also saves physicians' careers. Additionally, when addressing these problems clinically, rather than awaiting a crisis necessitating disciplinary action, complex and prolonged legal battles are avoided. PHPs safeguard both patients and physicians, and in the process they have developed one of the most successful models of recovery management.

The strongest incentive for early referral is the opportunity for confidential care and advocacy for physicians who cooperate with their PHPs. PHPs have proven successful with reports of 5-year abstinence rates of 79%, return to work rates of 96%, and virtually no evidence of risk or harm to patients from participating physicians.

Can the principles used by PHPs be transferred for use by other patients? Compared to other patients with addictions, physicians are an affluent and usually highly motivated group; however, there is evidence that their addictions are as severe as or worse as those of the general population. Certainly their access to drugs of abuse is greater than the general population. Many elements of PHP care management can be transferred, in whole or in part, to others offering the promise of substantial improvements in long-term outcomes.

Keywords Addiction recovery management · Physician Health Programs · Abstinence-based recovery · Physicians · Alcoholics anonymous

G.E. Skipper (✉)
Alabama Physician Health Program (Medical Director),
Medical Association of the State of Alabama,
19 S. Jackson St, Montgomery, AL 36104, USA
e-mail: gregory.skipper@gmail.com

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The PHP Concept and Its Applicability to the General Population

PHPs in the USA evolved over the past 3 decades under the authority of medical licensing boards, with the sustained support of the American Medical Association (AMA), to encourage early referral and long-term intensive management of behaviorally impaired physicians. Although the initial focus of PHPs was solely on alcohol and other substance use disorders, in recent years their focus has expanded to include a wide range of potentially impairing physical and mental disorders. The overriding PHP concept is to promote early detection and referral of treatable disorders that often cause impairment. This usually includes substance-related disorders and psychiatric disorders, but increasingly includes degenerative physical or neurologic diseases, disruptive behavior, and professional sexual misconduct. The motivation for early referral is greatly enhanced when PHPs offer confidentiality. In this chapter, we focus on the concepts developed by PHPs for care management of substance use disorders.

The state PHPs grew out of the earliest Employee Assistance Program model of work-related alcohol and substance use problems with the twin goals of saving physicians' careers, and also protecting the public and the public's confidence in their physicians. PHPs have a high expectation for successful abstinence-based recovery and have developed their programs to help physician participants achieve this goal. From the beginning, these programs have been led by a remarkable group of highly dedicated physicians, many of whom were themselves in recovery from serious substance abuse disorders. These program leaders networked together as the programs evolved to create a unique care management system. A parallel evolution took place with commercial airline pilots, supported and encouraged by the Federal Aviation Administration. This program, the Human Intervention Motivation Study (HIMS) [1], has similar dual objectives – saving pilots' careers, and protecting the public and the public's trust in their pilots.

Today the nation's PHPs provide a remarkable model of actively and intensively managing the care of recovering physicians over extended periods. They treat addictions as long-term chronic disorders. The PHPs evolved entirely empirically, without theoretical foundation, adopting policies that worked and discarding those that did not, over decades. In this process, they have set a new and far higher standard for outcomes. Our hope is that examining PHPs and their approach can provide inspiration and direction for the improvement of the treatment of all people suffering from substance use disorders.

The primary assumption on which medical licensing boards base their support for PHPs is that the early detection of, and active long-term management of, potentially impairing behavioral problems in physicians protects patients. Additionally, when substance abuse problems are addressed clinically, rather than awaiting a crisis necessitating disciplinary action, complex, expensive, and prolonged legal battles are avoided, intervention occurs more rapidly and careers and lives are preserved.

Physician Health Programs (PHPs) today are endorsed by medical licensing boards and without their support the task of PHPs would be more difficult, if not impossible. Based on experience now extending over 3 decades, medical licensing boards have recognized that PHPs can often act more rapidly to recommend discontinuation of practice and entry into a definitive evaluation, and when needed treatment and monitoring, because unlike boards, PHPs are not constrained by due process and other legal impediments to action. Regulatory boards, as legal entities, are usually required to conduct an investigation, develop a case, give notices, conduct due process and judicial hearings, and allow appeals. This process regularly takes months or even years to resolve. In contrast, PHPs only need credible symptoms (and not probable cause) to recommend discontinuation of practice and thorough evaluation. PHPs can only recommend because they have no direct authority over licensure. However, in most cases, physicians comply with PHP recommendations to avoid the risk of formal notification of the board. PHPs, in contrast to board action, can often have a physician in treatment the very day of initial referral. The public is well served and protected when PHP services are readily available.

It is not surprising that controversy has arisen in some states regarding the role of PHPs. In 2008, the California Medical Board discontinued the PHP (called the California Diversion Program). This was the result of media-fanned public controversy over the potential for substance abusing physicians to cause harm to patients. In California, this concern was vocally raised by an attorney representing a citizen's advocacy group. As in California, in 2008, the media periodically highlight unusual cases where addicted physicians cause patients harm. In most cases, however, the harm to patients caused by addicted physicians occurred prior to referral to PHP care. There are few recorded cases of patient harm following referral for PHP care. Nevertheless, the stigma of addiction and the sensationalism of the media combine, in the case of addicted health professionals, to create a volatile opportunity for headlines, such as "Doctors on Drugs." It is ironic that PHPs are attacked for "hiding the addicted physicians" when the very process of early detection, based on confidential referral, is essential to protecting the public because it encourages early intervention and continued participation of physicians eager to protect their ability to practice medicine.

Most PHPs do not provide direct treatment services themselves. Instead they oversee and manage care, utilizing carefully selected existing local and national evaluation and treatment resources. PHPs have refined the art and application of recovery management. In essence, PHPs have developed a primary care paradigm for substance-use disorders, one where early detection is encouraged, nonconfrontational interventions are performed with dignity and care, thorough evaluation and treatment are obtained, and long-term monitoring with contingency management are carried out. The concept is elegantly simple even if the execution is often complex. This concept mirrors the traditional success of primary care management for general health disorders, a phenomenon that has been surprisingly lacking in the mental health field. PHP care and monitoring are a successful example of the management of addictions as chronic illnesses.

PHPs encourage early referral through active, widespread education of physicians and of health care institutions regarding the opportunity and importance of confidential reporting. Colleagues who are unwilling to "snitch" on a colleague to the licensing board are willing to refer a colleague for confidential medical care. After physicians are referred because of concern over possible substance use disorders, intervention to formal, usually in-patient, evaluation rapidly follows. At the completion of the evaluation, when appropriate, treatment and long-term contingency monitoring are begun. Throughout this process co-occurring disorders are identified and treated. If relapses occur, the most frequent response is renewed evaluation and intensified treatment and monitoring. In cases where relapse is associated with an active risk to patients, most PHPs immediately report the participant to the licensing board. Overall, PHPs have proven successful with reports of 5-year abstinence rates for substance-use disorders of 79%, return to work rates of 96%, and little or no evidence of serious risk or harm to patients [2].

Many aspects of PHP care relate to subtle issues, such as the dedication and sense of mission of the PHP staff, who defy facile description. There are many variations from one PHP to another, but there is also a core system and strategy that we are describing here. The basic transaction of the PHP with the physician participant is that the PHPs offer physicians confidential support in dealing with threats to their license in return for the physicians' commitment to adhere to the agreed upon treatment and monitoring. In order for the public to be protected, however, there must also be a limit to confidentiality, usually worked out in detail between the PHP and the licensing board. In some cases, all relapses are reported and in others, the PHP only reports the physician who becomes a danger to patients (most relapses occur outside the context of patient care, e.g., drinking beer during a party over a weekend). In any case, relapses are dealt with in a decisive manner. The conditions of the physicians' relationships with the PHP are clearly detailed in simple language in an agreement between the PHP and the physician and signed by both. These agreements, based on recommendations from evaluation and treatment providers, detail each participant's individualized, highly specific treatment and monitoring plan.

In this process, PHPs set a uniquely high standard, absolute abstinence from any use alcohol or other drug of abuse for the entire duration of their care and monitoring, typically lasting 5 years or longer. Any unauthorized use of alcohol or other drugs is considered a relapse and is taken very seriously. Many programs even consider behaviors in violation of agreements (i.e., failure to attend required meetings or dishonesty), short of actual drug use also a relapse.

Whether for initial evaluation or reevaluation, PHPs usually utilize highly qualified evaluation programs for assessments, often on a residential basis, not only to identify any substance abuse problem but also to identify co-occurring disorders that might complicate treatment or decrease chances of successful outcome. As a result of in-depth evaluation, an active treatment plan is developed to address each and every one of the identified problems. The PHPs use the highest level of evaluation and treatment available, allowing participating physician patients to choose only from among a small group of providers approved by the PHP, providers who are well known to the PHP for their outstanding work. The quality of these providers is enhanced

as they compete for referrals because of the prestige of being selected by PHPs as one of the best providers of treatment and monitoring.

The contrast between this form of care and that received by the general public is profound. Most patients treated for addictions do not receive adequate independent evaluations to carefully identify co-occurring disorders. Most patients also do not receive a comprehensive and customized treatment plan. In fact, whether abstinence-based treatment is attempted at all, especially with regards to opioid addiction, depends greatly on the services the patients select rather than a medical recommendation based on evaluation. Often the choice of treatment modality is governed more by accident or geography than by the addicted patients' needs. In the world of substance abuse treatment for the average person, it is sad to note that the standard of care is not high. In fact, there is a national cynicism and self-fulfilling negative prophecy regarding poor outcomes for most abstinence-based treatment. Routine random drug testing is almost nonexistent in treatment outside PHPs. Most substance abuse treatment is brief. Aftercare, such as it is, is almost always voluntary and seldom prolonged, if it exists at all. Few patients have the benefit of ongoing testing or contingency management. Can anyone wonder why substance abuse treatment outcomes are poor?

While not related to the evolution of the PHP model, an important but largely obscure body of academic literature has emerged regarding "contingency management." Typically these experiments use small positive rewards (i.e., an allowance, a chance to participate in a raffle or enhanced driving or in pharmacotherapy take-home privileges) for negative drug tests. When patients fail, there are negative rewards (i.e., forfeiture of privileges or fines). The results of these research-based contingency management studies have been strikingly positive even with these modest, even trivial, rewards and punishments [3]. This growing body of academic knowledge regarding contingency management lends credence to the idea that PHP-type care could be applied widely in substance abuse treatment

Cost is an important consideration when thinking about extending the PHP model more widely. The cost of running a PHP on average is $2,300 per year per monitored participant; however, since most PHPs are subsidized by their licensing boards, the costs are shared by all licensed physicians. This cost per licensed physician averages $23 per year, not an excessive cost when one considers the considerable benefits.

The bottom line is that components of these highly successful programs for airline pilots, attorneys, and other health professionals should be more widely used for all patients with substance-use disorders.

History of PHPs

Physicians have a long and colorful history of substance abuse in America. Addiction touched the lives of some of the nation's most prominent practitioners, including Dr. William Halsted (1852–1922), the father of modern surgery, who was

addicted to cocaine and morphine. One of the cofounders of Alcoholics Anonymous (1935) was a physician, Dr. Robert (Bob) Smith, a proctologist. An organization of recovering physicians, the International Doctors in A.A. (IDAA), was founded in 1949 by Dr. Clarence Pearson and has continued to thrive. Recovering doctors continue to play an important role in the development of the broader field of addiction medicine.

PHPs began to emerge in the late 1970s in response to two primary factors. (1) Medical regulatory licensing boards had begun to investigate complaints of all types, including those related to suspected substance abuse, from the public (leading to a heightened necessity to deal with problem doctors). Prior to that time, boards had assumed the role of confirming that doctors had graduated from medical school and/or, beginning in the 1950s, that they had passed the required tests (national boards) to ensure adequate knowledge-base prior to licensure. It was not until the 1970s, however, that regulatory boards generally began accepting the role of "policing" the profession. Once this began, it became clear that exclusive reliance on disciplinary action was not the best approach to illness [4]. (2) In 1973, the Journal of the American Medical Association (JAMA) published the seminal paper "The Sick Physician. Impairment by psychiatric disorders, including alcoholism and drug dependence" and the AMA actively began to encourage the development of PHPs to address the need for early detection and treatment of troubled doctors [5].

The AMA held its first conference on physician health in 1975 and has continued every 18 months since. State medical societies began to organize volunteer committees on physician "impairment" and this momentum eventually coalesced with support from regulatory boards, and the result was the state-by-state emergence of professional PHPs. Currently, all but four states in the USA have formal PHPs, ranging in size from one employee and a $20,000 budget to a 1.5 million dollar budget and 19 full-time employees [6]. It is estimated that over 9,000 physicians are now in PHP monitoring in the USA [7].

During the time of their development, from the late 1970s and continuing to the present, several trends can be observed. (1) An initial focus on substance abuse disorders gradually broadened to other psychiatric disorders, disruptive behavior, professional boundary issues, physical disabilities, and cognitive disorders. Most PHPs have evolved to recognize their role as addressing any remedial impairment-related disorder. (2) An initial focus on physicians has gradually broadened so that most PHPs work with other health care professionals (dentists, veterinarians, pharmacists, etc.). (3) The Federation of State Physician Health Programs emerged in the early 1990s to provide encouragement sharing of ideas, support, and refinement of approaches to education, interventions, sources for evaluation and treatment, and methods of monitoring for PHPs.

Care Management

"Care management" is the term used to describe the process utilized by PHPs. Care management represents a dynamic combination of ambitious and sustained

empathy and case management. Research in the mental health field has shown that these are the two most important determinants of best outcomes for the treatment of complex mental health disorders: case management, and the presence of a "positive relationship between the participant and a primary healthcare provider." When these two are present, chances for successful outcomes are maximized.

Just as a "case manager" oversees and supports the patient throughout the process of treatment, the PHP oversees and supports the patient throughout the entire course of their recovery, from evaluation, through treatment, and then as an intensive and supportive monitor for years into recovery. During the monitoring phase, if the patient shows laxity or irregularity in his or her recovery activities that might lead to relapse, the PHP initiates an intervention to correct the behavior and/or move the patient toward reevaluation and possible further treatment.

The PHP coordinates the entire process, consulting experts and key service providers, as well as with family members and workplace associates of participating physicians, to ensure that the plan is developed appropriately and monitored to achieve optimal outcomes. The PHP also helps obtain the best specialist services, during and following treatment, to address particular needs of the participant. This care management approach promotes participants use of skilled services to deal with complex and multiple needs from a range of service providers. The goal of care management is to achieve seamless competent service delivery.

Care management ensures service provision that is participant rather than organizationally driven. PHPs serve as a resource, coordinating specialized activities that flow from the particular setting and evaluation or treatment program, while building a genuine trusting but accountable relationship with the participant. PHPs directly provide the following core services: screening, assessment/risk management, care planning, implementing service arrangement, monitoring/evaluation, and advocacy. This care management is clearly contrasted with typical managed care, which seeks to minimize costs. In PHP care management, the primary effort is to promote the best long-term outcome, not to achieve the lowest cost.

For these processes to be effective, policies must be developed and the PHP supervised, optimally by an oversight committee. Policies, to which the PHP staff adhere, provide a framework to set limits on participants' behavior. The committee that oversees the program and policies provides important backup and support for the PHP.

The PHP Model

Modern PHPs typically provide a range of services including (1) educational programs that promote early referral, (2) professional intervention services, (3) referral to formal evaluation, (4) referral to formal treatment, and (5) long-term monitoring.

Educational programs: Educational programs provide an excellent opportunity to encourage early referral by emphasizing the confidential clinical nature of the programs and for the PHP staff to become known and trusted. In these meetings,

the PHP staff explain who, how, and when to refer physicians with possible behavioral problems, including substance use disorders. Early referral of physicians with substance use problems before actual impairment and patient harm occurs is the goal. Providing copious education to every willing hospital, medical group, county medical society, etc. is an excellent way to spread the word about the PHP program.

Professional intervention services. When a physician is referred to a PHP, a preliminary assessment is performed to verify that the referral is legitimate and appropriate. Illegitimate referrals are rare but can occur from disgruntled spouses or political enemies. Once a referral is deemed legitimate a professional intervention is conducted, often within hours of initial referral. It is of note that interventions utilized by PHPs are not similar to the Johnson-model interventions performed by groups. PHP staff have perfected the art of professional intervention. A professional intervention is simply one in which physicians are presented with information about the PHP, the fact that concerns have been raised about their behavior, the concerns appear legitimate (even if not accurate), and a formal evaluation is strongly recommended to determine if a real problem exists. PHP procedures and policies provide protection and advocacy for the physician, if the physician voluntarily follows the PHP's recommendations.

Referral to formal evaluation. PHP policies usually specify that a formal evaluation at an authorized evaluation site is the next step. Most PHPs provide a list of authorized sites that have been screened and meet criteria established by the PHP to conduct evaluations. If the evaluation fails to identify a problem, this fact can be used to exonerate the physician by the PHP and to squelch the original complaint – a situation that while rare does occur thus validating the PHP evaluation process. Whatever the outcome of the evaluation, the PHP assists the physician by documenting the findings. Many PHPs actually participate in the "end of evaluation" summary, often by conference call. During this summary, the evaluating programs present their findings. The PHP staff can then answer questions for participants regarding their options, consequences for noncompliance, where to continue treatment, etc. Participants are always given options and are always treated with respect and dignity.

Referral to formal treatment. PHPs assure that physicians receive credible care by referring them to competent patient-oriented treatment centers. Most PHPs maintain criteria for placing evaluation and treatment programs on their "authorized" lists. Participants are allowed to choose among the options. Participants are given, usually in writing, a limited time in which to make their decisions regarding entering treatment. Once treatment begins, treatment centers are asked to provide regular, at least weekly, updates so that PHP staff can be involved in the treatment process. PHP staff often communicate with the workplace (where the participant is expected to return following treatment), the participants' families, and others.

Long-term monitoring. PHPs conduct long-term monitoring, utilizing random drug testing, reports from a worksite monitor, group attendance with the documentation of attendance, and other recovery oriented activities. The benefits of long--term monitoring are numerous including the ability of the PHP to advocate on

behalf of the participant. This becomes a positive experience, when the PHP can document proof of recovery and applaud the recovering doctor for their success.

Key Ingredients

Studies have yet to be conducted that definitively isolate the most potent ingredients of PHP care management; however, we have identified eight practices that addiction counselors and the treatment programs could incorporate into their own work.

Find a motivational fulcrum. The PHP utilizes a crisis-induced window of opportunity to transition those they serve from the experience of pain to the experience of hope. The common message is, "You are in a bind. We can help you now because we represent a legitimate process and a group of physicians who have escaped the very pain that you are now experiencing." The PHP intervention focuses on the arena in which the physician's identity is most enmeshed, the status-imbued practice of medicine and the potential loss of identity, income and social standing that would follow license revocation. Even where contact with the PHP is voluntary, these potential realities remain an omnipresent subtheme of the assistance process. What counselors can take from this is the importance of contingency management, i.e., linking recovery to meaningful positive rewards and relapse to negative consequences that are serious and likely to be imposed. Establishment of a behavioral contingency agreement, on paper, clearly identifying required aftercare activities and a commitment to regular drug testing – a tangible measure of sobriety and of relapse. This reinforces important mediums of continued recovery and provides a source of support and remotivation, which is especially important during early recovery. The stakes involved in this contingency are best, if they are specific and serious, for example, loss/retention of intimate relationship, job/career, children, freedom, or privileges. Counselor folklore is replete with admonitions that no one can get sober except for themselves, but lighting the sobriety fire requires kindling and a source of ignition that is specific to each patient. Contingency management techniques are becoming more widely accepted and their effectiveness is well documented [2].

Provide comprehensive assessment and treatment. Another key component used effectively by PHPs is the provision of comprehensive formal evaluation and high-quality treatment that addresses the full scope of identified problems. What the mainstream substance abuse treatment system can take from this is the need to provide patient-oriented treatment rather than having a fixed program to which patients must adapt. What distinguishes the settings in which doctors are treated from the most common forms of substance abuse treatment is not that the treatment for physicians is more expensive (a factor that does not always translate to better quality), but that it is far more intensive and comprehensive, e.g., more likely to be prolonged (if needed) and to include concurrent psychiatric evaluation and treatment plus rigorous family programs and treatment of any other problematic condition (i.e., chronic pain, sexual disorders, etc.) [8].

Provide the care management oversight role. PHPs oversee and guide care, utilizing well-established best providers. PHPs create structure and accountability. The role of the PHP is similar to that of the coordinating role of a primary care physician who helps to select specialists and other resources, acting as a guide through the complex maze of healthcare. Likewise, PHPs direct care for troubled physicians, helping them to select appropriate resources and conducting long-term monitoring. Similar long-term oversight, coaching, directing, and monitoring could be provided for all patients.

Have a high expectation for abstinence-based recovery. PHPs expect each physician participant to maintain lifelong abstinence from alcohol and drugs. Relapses are seen as temporary setbacks or learning experiences. Reevaluation and, commonly, further treatment are constructive responses that reinforce the goal of long-term recovery. The goal is to set physicians up for success – both in their recovery and their practices. This approach can inspire higher expectations for success for all substance abuse patients. Good care management involves continued pursuit of whatever treatments or changes in care are necessary for long-term recovery.

Assertively link to recovery support groups. PHPs rely on active (linkage to a particular person/group/meeting) rather than passive (verbal encouragement for participation) referrals to 12 step and other recovery-focused mutual aid groups. They also link each member to professionally directed group therapy with other physicians in recovery and monitor physician attendance at such meetings. The PHP encourages participation in peer-based recovery support groups, e.g., Caduceus Meetings or International Doctors in Alcoholics Anonymous. The goal is to link each individual participant with people who will reinforce their identity as a recovering physician and to lead these same individuals into sustained relationship with the larger recovery community.

Sustain monitoring and support and, when necessary, reintervene. Posttreatment monitoring and support enhance long-term recovery outcomes [9]. PHPs are unique in the length of time they monitor and support persons in recovery. The monitoring function involves periodic interviews as well as random urine and hair testing for 5 years or longer. PHP staff members respond immediately and vigorously to any positive drug screen with an appropriate level of reevaluation, encouragement to seek further treatment if needed, and the ever present potential, if warranted, of referral to the licensing board if recommendations are not followed. Every participating physician knows that referral to the licensing board could result in loss of license.

This high level of surveillance and support does not eliminate relapse. Studies reveal that up to 25% of physicians in PHPs experience at least one relapse [10]. Nevertheless, the results of PHP care management set the standard for low levels of relapses over very long periods of time. With active monitoring and reinterventions, most participating physicians eventually establish stable recovery, thus avoiding posing threats to the safety of their patients, and retaining their licenses to practice medicine. Active and sustained monitoring insures early identification of relapses, which in PHPs typically lead to increased support and reintervention. This may be the component that most distinguishes PHPs from many mainstream addiction

treatment programs, other employee assistance programs, drug court and other criminal justice programs, and intervention programs in the child welfare system, none of which offer this high level of prompt rigorous and enduring monitoring and support.

Reintervene at a higher level of intensity. Another distinguishing feature of PHPs is that relapse and reintervention are followed by reevaluation and the possibility of more intensive, prolonged, and specialized treatment rather than a readmission and replication of the same treatment that was provided earlier. This blend of support and accountability, alliance and toughness distinguishes PHPs from other interventions that seek but too often fall short of creating and sustaining these important ingredients.

Integrate these elements, where possible, within a comprehensive program. Many persons achieving successful recovery experience elements of what we have described here, but the PHPs are distinguished by their inclusion of these elements within an integrated and long-sustained program. The level of cohesion and coordination that comes from such integration may itself contribute to the PHP's high, long-term recovery rates. The best drug courts and the more innovative programs in the child welfare system share similar direction and integration but seldom have the intensity or duration that is typical of PHP care management. Where such elements are lacking, counselors could better serve their clients by providing the leadership within a multiagency intervention model that utilizes an integrated service plan and contains the potent ingredients that are common in PHP care.

Summary of Results of a National Study of PHPs

In 2006, the first national study of PHPs was conducted in two phases with the active support and participation of the Federation of State Physicians Health Programs (FSPHP). Phase I consisted of a survey to identify which states had functioning PHPs and to explore their structure and function. Phase II was an assessment of outcomes utilizing record reviews of participants who had been in the PHP 5 years or more. Results of this study are summarized.

Phase I

Each state and the District of Colombia were surveyed identifying 49 PHPs. Nebraska and North Dakota had none. Georgia was excluded from analysis, as its PHP was essentially nonexistent (three participants) and was not officially recognized by its board. Of the resulting 48 possible states, 42 (86%) participated in the Phase I survey.[1]

[1]Since 2006, two additional states have lost their PHPs, California and Wisconsin.

One hundred percent of respondents claimed to have a defined relationship with their regulatory boards and most were primarily funded by the regulatory boards (average funding from boards for all PHPs was 50%). Other sources of funding included participant fees, hospitals, medical association or societies, etc. The majority of PHPs (54%) were setup as nonprofit foundations and the remainder were either run within the state medical association (35%) or were part of the regulatory board (13%).

Seventy-six percent of programs maintained a list of authorized evaluation and treatment providers and 48% based this list on specific written criteria. Ninety-five percent of programs required weekly updates from treatment providers. There is little doubt that evaluation and treatment programs actively compete for this PHP business, which may stimulate a healthy competition that could improve the quality of care offered by these programs. All but one PHP required a 5-year monitoring agreement for substance use disorders. The most common components of care specified in monitoring agreements were 12-step group attendance (95%), worksite monitor (71%), and drug testing (100%). There were numerous other commonly offered components of care including group therapy, aftercare, individual therapy, monitoring physician, visits with the PHP staff, etc.

Regarding drug testing, urine is the most common matrix tested; however, hair, breath, and saliva are also utilized occasionally, and there is a growing trend to increase the use of these alternatives to urine testing. The panel most often performed was a 20+ drug health professional drug panel, in contrast to the five-drug (or less) panel commonly used in most monitoring programs. The average participant received weekly random drug testing for the first 6 to 12 months followed by once or twice per month for the remainder of the agreement. The testing was random, meaning that typically every day of the work week the physician participants called a phone number to see if that day they needed to submit a sample for testing. Even if they had been tested the day before, they could be tested next. The frequency of testing varied over time, depending on the physicians' performance, but the random testing continued throughout the extended period of PHP care. Testing was not only for drugs of abuse but also for alcohol use. If problems emerged, frequency of random testing was substantially increased. All agreements included total abstinence, including alcohol abstinence, and 61% of programs routinely used ethylglucuronide (EtG) testing to better detect alcohol use.

Phase II

Phase II of this national study of the state PHPs involved reviews of PHP participant records of physicians who had signed monitoring contracts 5 years prior to when the study began. Sixteen state PHPs participated in this phase of the study and 904 records were reviewed.

Most of the agreements of the 904 subjects were for substance dependence (88%). The remainder was for substance abuse. The most common primary

substance of abuse was alcohol (50%), followed by opioids (36%), and stimulants (8%). The remainder included marijuana, sedatives, and hallucinogens. Fourteen percent of physicians admitted intravenous drug use, 17% had been arrested (mostly for driving while intoxicated, DWI), and 9% had been convicted of a crime related to the substance use.

Regarding various specialties, anesthesiology, emergency medicine, psychiatry, and family practice were overrepresented compared to what was expected from their relative prevalence among all physicians. Pediatrics, surgery, and pathology were underrepresented. The most common source of referrals were the regulatory boards (22%), a hospital (18%), self-referral with coercion (14%), a colleague outside the hospital (14%), self-referral without apparent coercion (11%), or a substance abuse treatment center (7%). All these physicians faced serious problems that they considered would jeopardize their practice of medicine.

Evaluations on the 904 physicians were usually conducted by an independent approved evaluator (55%), and to a lesser extent by PHP staff (16%), or unapproved outside evaluators (13%). Treatment was exclusively abstinence oriented utilizing the 12-step approach. The majority of initial treatment was residential or day treatment (78%) and the remainder was intensive outpatient (22%). Only one participant of the 904 was placed on methadone and that participant was not practicing medicine at the time of the study, even though opioids were the primary drug of abuse for over 300 of the participating physicians, roughly half of whom used opioids intravenously. Naltrexone was used by 6% of participants and antidepressants were taken by 32%.

Outcomes were measured in several ways. *Program completion*: Sixty-four percent of participants completed 5 years of monitoring without incident. Sixteen percent were retained in the program following difficulty (usually a relapse – see below) and 19% failed to complete "this episode" of PHP care. Of this final group who failed to complete, 55% retired, 31% did not complete because their license was revoked, and 14% died (6 by suicide). *Licensure*: 72% of the 904 participants were actively practicing at the time of the follow-up study and only 4% of the total had their licenses revoked at the time of the study. The remainder were either inactive (possibly due to moving out of state), retired, or practicing while on probation. *Relapses*: 22% had some type of substance use relapse; 16% of participants had a relapse that did not involve patient care; and 6% of participants had a relapse that, in the context of practice, could have put patients at risk. Despite this, there was only one noted episode where a patient was harmed and that involved inappropriate prescribing. *Drug tests*: The 793 physicians with known outcomes and available drug test results were separated into three groups based on the number of positive tests they had during their entire period of PHP monitoring. Six hundred and twenty-three or 79% of these physicians had no positive tests for any drug or alcohol during their monitoring. One hundred and eleven or 14% had only one positive test for drugs or alcohol. The remaining 59 physicians – 7% of this group – had more than one positive test during their monitoring, with a mean of 3.3 positive tests for this group. Of the 67.652 tests given to this group, 308 were positive (0.46%) or about one in 200 tests. The average number of random drug and

alcohol tests per physician participant was 85. There were no significant differences among the three groups on demographic variables or primary drug of abuse, but there was a significant difference in the outcome of their PHP care. In the large group with no positive tests, 16% failed to complete their care successfully compared to 24% of the physicians with one positive test and 45% of the physicians who had more than one positive test for alcohol or drugs. We believe that these drug test results are without equal in any clinical sample of substance abusers in terms of the intensity, comprehensiveness of the testing (many drugs plus alcohol), and results of the tests. In fact, there are few records of populations without any known drug problems who have such a low positive test rate (0.46%) with similarly comprehensive testing (cite our LTE in process).

Wider Applicability of the PHP System of Care Management

The most obvious application of the PHP model is in other workplace settings where employees have a high motivation to retain their jobs and where the employer has a high motivation to keep the employee. Unlike physicians, some employees are not valued highly. Other employees are so highly accomplished in their field that they can simply and easily move to a new job. For physicians, this is far more difficult because licensing is tracked by a National Practitioner Databank, designed to prevent physicians from "escaping" their transgressions by moving. Few physicians have the option of leaving the practice of medicine and replacing their lost income and the lost nonmonetary rewards they reap from their medical practices. Nevertheless, when there are employment situations where the motivations to retain the job and the employee are high, then the conditions are similar to that with physicians.

Contingency management studies have shown that even tiny positive and negative reinforcements linked to drug testing make a dramatic difference in outcomes. Therefore, PHP concepts, tied to tight monitoring of compliance including random drug testing, can be built upon minor positive and negative consequences that can almost always be found, if sought, with any patient.

One group of patients that deserve special mention are those in the community under the supervision of the criminal justice system, including drug courts. While this population of substance abusers could hardly be more different from physicians, a similar system of care management has evolved in some locations. A program called HOPE Probation (Hawaii's Opportunity Probation with Enforcement) in Honolulu has produced similar outstanding long-term outcomes. This program uses similar intensive random monitoring linked to swift, certain but not severe sanctions, in this case a few days in jail.

Early research results that compare 6-month follow-up data to 3-month baseline data show that HOPE participants have better outcomes than regular probationers

reporting fewer arrests, probation revocations, and missed probation appointments [11]. HOPE participants in a specialized unit showed a 91% reduction in positive drug tests and an 85% reduction in missed appointments, while non-HOPE offenders in the same specialized unit showed no improvement on drug test results and a 23% increase in missed appointments. Under general probation without HOPE, 36% of offenders tested positive on drug tests compared to only 11% of HOPE participants. Rates of general arrests for HOPE participants were 34% lower than for nonparticipants. Additionally, rates of nontechnical violations for HOPE participants were 111% lower.

A similar program has emerged to deal with DWI offenders in South Dakota. In this innovative program, the 24/7 Sobriety Project, in which, instead of offenders being required to simply refrain from driving after drinking, they are required to refrain from any alcohol or drug use. This program, like HOPE Probation, relies on intensive testing linked to swift, certain, but mild consequences (brief jail time) to produce remarkable results. Unlike many programs, 24/7 utilizes specific drug tests based on geography to enhance results. Offenders may be subject to twice daily urine testing at their local sheriff's office or, if in rural areas of South Dakota, they may be subject to ankle bracelet monitoring 24 h a day.

In a pilot study of over 1,000 DUI offenders in which participants were drug tested for an average of over 100 days, two-thirds were 100% compliant and drug free. Seventeen percent failed to be compliant once and less than 10% failed twice. Only 6% of offenders failed more than two times. This pilot study initiated state-wide authorization of the 24/7 program, which has continued to demonstrate remarkable results. Of all participants given urinalysis tests, 98% were compliant, testing alcohol free. Seventy-eight percent of offenders who wear alcohol monitoring bracelets remained alcohol free and program compliant. Finally, 92% of participants who wore drug sweat patches remained clean.

These programs share obvious similarities to PHPs and deserve further consideration. Their successes support the contention that PHP-type care should be more widely utilized and that the outstanding results found in PHPs are not solely the result of special characteristics of physicians or the unusually high level of treatment the PHP physicians receive.

Barriers to Wider Application of the PHP Model of Care Management

There are significant barriers to wider application of the PHP model. These include cost, public opinion, tradition, cynicism about the possibility of long-term recovery, and anger toward addicted people. Philosophically, there are two extreme views that disagree with PHP-type care, those that want to protect addicts from consequences and those that want harsher consequences. First, there is a deeply held view among many people treating substance abusers that relapse is part of the disease and thus to be expected and tolerated even if passively discouraged. It is thought in this

view known as "harm reduction" that to "punish" an addicted drug user for continued drug use is similar to punishing a diabetic for having a crisis or a heart attack patient who does not stop smoking cigarettes.

Those at the other extreme believe addicts should receive harsher punishment. They do not want PHP-type care because they believe addiction is a crime that should be punished exclusively through the legal system. In many ways, the harm reduction stance is a political or ideological reaction to this legal position. Both are barriers to expanding PHP-type care. These law and order folks who want PHPs ended also believe that addicts should receive harsher "punishment."

We see PHP care is a middle ground between these two extremes. Like diabetics who are not careful with their diets, there are natural consequences of further testing, more frequent doctor visits and possible hospitalization. There is also the ever present risk that a diabetic episode could cause more serious debility or even death. PHP care delivers similar "reality-based" consequences to its participants. Failing to attend required treatment and support groups may result in heightened testing frequency. Relapse outside the context of practice may result in 3–4 days inpatient evaluation with attendant loss of income and cost. Major relapse causing risk of harm to patients typically results in license suspension or revocation. We contend that between the two extremes of withdrawing direct consequences in the "harm reduction" model vs. excessive consequences in the "law and order" model, the PHP model is the correct balance. In the end, this is not a question of ideology or politics; it is a question of scientific evidence. The 3 decades of PHP experience have established one of the longest and best studied records of care in the substance abuse field. That record validates the PHP model and helps to shape attitudes. For example, it has demonstrated that a strict no use standard not only for the patients' primary drug of abuse but also for any alcohol or other drug use leads not to high levels of failure and termination of care but to the opposite – to remarkable compliance and long-term success. That evidence turns the usual ideological arguments on the head. Is it more compassionate to let a drug user continue to use drugs or to use serious, long-term contingencies to insist on monitored compliance with the absolute abstinence standard? The PHP gives a clear answer to that question: it is not scientifically valid, nor is it compassionate to expect and to tolerate continued alcohol and drug use among people with substance use disorders. In reality, it may not be possible to provide most patients with the quality and level of care that typical PHP patients receive. To the extent that the outstanding outcomes of the PHPs are dependent on outstanding treatment, this is a barrier to wider application of this model. The HOPE probation model offers a different view of this, as their treatment is what is available in the community, and more than half of the participants succeed for up to 6 years with monitoring and consequences alone, without treatment beyond their once-a-month visits to their probation officers.

In our view, the most appropriate way to look at the PHP outcome data is first to see that it disproves the claim that relapses are inevitable or even common in this biological brain disease. When the conditions in which the decision to use or not to use alcohol and other drugs change so does the behavior. In the case of the

PHP participants, an environment rich in support and utterly intolerant of continued alcohol and drug use results in outstanding outcomes over the course of many years.

We favor integrating the concepts and elements of PHP care management more widely within the framework of national drug and alcohol treatment policy.

Summary

Addicted physicians involved in PHPs have exceptionally high long-term recovery rates. They recover in such high numbers not necessarily because they are physicians, but at least in part because they participate in programs that differ significantly from usual substance abuse treatment in the USA. The eight components of PHPs that we consider to be the keys to quality enhancement are (1) find a motivational fulcrum, (2) provide comprehensive initial assessment and extended treatment, (3) provide care management for many years, (4) have a high expectation for abstinence-based recovery, (5) assertively link to recovery support groups, (6) sustain monitoring and support and, when necessary, reintervene, (7) reintervene at a higher level of intensity at any sign of relapse, (8) integrate these elements, where possible, within a comprehensive program.

The nation's state PHPs are rooted deeply in the recovery community. They have been the embodiment of the recovery view of addiction as a serious, potentially fatal, progressive disease that can be overcome to produce lifelong abstinence and greatly enhanced quality of life through the use of the recovery programs, especially the 12-step programs. Recognizing that relapse is a continuing threat even after abstinence is obtained for people with substance abuse disorders, the PHPs include long-term and intensive monitoring in the context of the highest level of professional treatment not only of addiction but also of comorbid disorders, which can be barriers to recovery. Not only are these programs a model on which others can build, but they are also an inspiration to improve care management and treatment for all people suffering from substance use disorders and many other behavior disorders. The PHP model of care management was not built around any ideology. It evolved over decades in separate – but communicating – state programs. This model of care was based on what worked as judged over long periods of time and intense and direct involvement with the diverse individual physician participants.

Even if the PHP model is unattainable for all patients with substance use disorders today, the data compiled by the nation's state PHPs offer a beacon to future developments in managing substance use disorders. It shows the way forward, and even more importantly, this still growing body of evidence dispels the self-defeating pessimism about substance use disorders that normalizes relapse failure to achieve long-term recovery. The PHP experience makes clear the limits of recovery from substance use disorders that do not lie in the biology of the disease but in the context in which it is managed and treated. The PHP experience clearly supports the role of intensive, long-term recovery management participation.

Key Points

1. PHPs have a high expectation for successful abstinence-based recovery and have developed their programs to help physician participants achieve this goal.
2. PHPs utilize a primary care paradigm for substance-use disorders, one where early detection is encouraged, nonconfrontational interventions are performed with dignity and care, thorough evaluation and treatment are obtained, and long-term monitoring with contingency management are carried out.
3. A motivational fulcrum or "leverage," based on maintenance of medical license, is subtly or overtly utilized through every step of PHP care.
4. Interventions are directed at encouraging evaluation rather than treatment.
5. Much emphasis is placed on good evaluations, conducted by selected providers who meet stringent criteria.
6. The conditions of the physicians' relationships with the PHP and the terms of extended monitoring are clearly detailed in simple language in an agreement between the PHP and the physician and signed by both.
7. PHP care could be thought of as a long-term high stakes example of contingency management.
8. PHP care and monitoring are a very successful example of the management of addictions as chronic illnesses.
9. Aspects of PHP care that can be used in other populations include finding and defining leverage, intervention directed at obtaining good evaluation, adequate treatment, long-term monitoring under a contingency contract, reintervention and reevaluation as needed for relapse.
10. Drug courts are similar in many ways to PHPs and have been shown to be successful.

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