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An Initial Evaluation of a Comprehensive Continuing Care Intervention for Clients with Substance Use Disorders: My First Year of Recovery (MyFYR)

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Abstract

Introduction—Physician Health Programs (PHPs) generate high rates of sustained abstinence in addicted physicians, through a combination of formal treatment, self-help involvement, regular monitoring via random urine toxicology tests, and powerful incentives generated by the threat of losing one's medical license. Recently, Caron Treatment Centers developed a new continuing care intervention, "My First Year of Recovery" (MyFYR), which is modeled after PHPs but provides extended recovery support to a broader segment of those with substance use disorders. This paper presents initial outcome data from MyFYR.

Methods—MyFYR features frequent outcomes monitoring via urine toxicology tests, and also includes a web-based social platform to coordinate efforts of recovery coaches, family members, and others (e.g., employers, probation officers). Participants were the first 198 clients who enrolled in MyFYR after participating in residential treatment at Caron. Substance use outcomes were determined by a combination of urine toxicology tests, client self-report, and information from family members obtained during a 12-month period following entry into MyFYR.

Results—Clients in MyFYR provided 70% of scheduled urine samples, for an average of 16.4 urine samples per client. Only 4.1% of the samples tested positive for alcohol or any drug. As determined by urine toxicology and client and family reports, 54% of the participants had some use of alcohol or drugs during the follow-up. Of these relapsed clients, 71.4% were retained or re-engaged in MyFYR, and of these, half were able to re-establish abstinence of two months duration or more, as documented by urine toxicology.

Discussion—These initial results are extremely promising, as they document high rates of sustained participation in urine drug test monitoring and positive outcome in clients not under the threat of losing a professional license or incarceration.

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Keywords

substance use disorder treatment; continuing care; outcomes monitoring; urine drug test; web platform

1. Introduction

Substance use disorders (SUD) often have a chronic course, characterized by cycles of abstinence, sporadic use, and heavy use (Hser, Longshore, & Anglin, 2007; McKay, 2009; McLellan, Lewis, O'Brien, & Kleber, 2000). Wider use of effective extended continuing care has been recommended to increase rates of sustained recoveries and limit the severity and duration of relapse episodes that do occur (Dennis & Scott, 2007; Humphreys & Tucker, 2002; McKay, 2009; Miller & Weisner, 2002).

Despite the perceived importance of continuing care for SUD, evidence for the effectiveness of such interventions is actually mixed. A recent meta-analysis generated only modest support for continuing care, finding statistically significant but small positive effects at the end of continuing care and at follow-up (Blodgett, Maisel, Fuh, Wilbourne, & Finney, 2014). The interventions in this review ranged from 3 to 18 months in duration. There is some indication that continuing care interventions with durations of at least 12 months and active efforts to deliver the intervention may show larger effects than other interventions (McKay, 2009; McKay et al., 2010; Scott & Dennis, 2009), although the Blodgett et al. (2014) meta-analysis did not find that duration moderated continuing care effects.

Recent work has suggested that small overall positive effects for continuing care may be masking larger effects in certain subgroups of patients. For example, work by McKay and colleagues has indicated that extended telephone-based continuing care may be particularly effective for poorer prognosis patients, as indicated by lower motivation, poorer social support, and prior treatments for SUD (McKay et al., 2011) or by active alcohol and drug use at admission to IOP or during the first few weeks of treatment (McKay et al., 2013), as well as for women (McKay et al., 2011; McKay et al., 2014). Furthermore, Recovery Management Checkups, which provide monitoring every three months over four years and linkage back to treatment, was found to be more effective for participants with earlier onset of substance use disorders and higher scores on a measure of criminal and violent behavior (Dennis & Scott, 2012).

Another possible explanation for small continuing care effects concerns the nature of the interventions themselves. The continuing care interventions that have been evaluated in research studies typically consist of sessions provided in clinics or over the telephone, at intervals that range from weekly up to every 3 months, with little use of between-session contacts or frequent monitoring via urine screens or other biological measures. This approach may not be adequate for rapid identification of relapses and quick clinical response when relapse is detected. Consequently, the model of continuing care used to treat physicians and pilots has generated considerable interest. Treatment for physicians is coordinated by state Physician Health Programs (PHPs) and typically features intensive

treatment combined with professional support and frequent random drug testing for five or more years.

Procedures in PHPs were recently studied by DuPont, McLellan, White, Merlo, and Gold (2009). All PHPs required total abstinence from use of alcohol and all other drugs of abuse and provided records documenting abstinence and program participation to licensing boards, hospitals, and malpractice carriers who required this information as a condition of continued ability and eligibility to practice medicine. DuPont et al. (2009) reported that PHPs provide long-term monitoring and documentation of contract compliance, and were uniformly aggressive in the management of relapse to either alcohol or drug use or to noncompliance with program requirements, with prompt re-intervention and referral for further evaluation and/or treatment. Generally, relapse was classified into different levels based on non-compliance only, or use of alcohol or drugs in different situations (i.e., away from or during work hours). Regardless of the relapse category, all PHPs appeared to deal with these occurrences rapidly and with meaningful and sustained therapeutic intervention. Factors thought to be related to the high success rate are (a) clear and significant contingencies for substance use and any violations of the protocol, (b) frequent random drug screening, (c) tight linkage with 12-Step recovery programs, (d) active management of relapses in the monitoring phase, (e) a continuing-care approach, and (f) a focus on lifelong recovery (DuPont et al., 2009).

McLellan, Skipper, Campbell, and DuPont (2008) examined long-term outcomes of PHP managed care on the substance use and medical care practices of addicted physicians. The study was a retrospective, intent-to-treat evaluation of chart and urine testing records over a five-year period, in 904 consecutively admitted physicians to 16 state PHPs. Of the 802 physicians in the sample with known outcomes, 647 completed treatment and resumed practicing. In that group of physicians, alcohol or drug misuse was detected through urine toxicology testing in 19% of the participants over five years, with only about 20% in the group with a positive test having more than one such test result. At the five-year point, 79% of the physicians with known outcomes were licensed without restriction and practicing medicine, or working in a nonclinical capacity. These findings indicated that addicted physicians managed by PHPs have favorable long-term outcomes.

Another follow-up study looked at the long-term outcomes of physicians enrolled in the Washington Physicians Health Program because of substance use problems (Domino et al., 2005). Of the 292 individuals in the study, 25% had one or more relapses during the follow-up period, which was as long as 10 years. Slightly more than half (58%) of those who relapsed did so within the first two years of participation in the program, and only 13% of the physicians had their first relapse after five years. Of those who relapsed and were followed for another five years, 61% were able to successfully return to the practice of medicine.

Given the apparent success of PHPs, there has been interest in applying this approach to continuing care to other patient populations. However, there has been concern that participation in frequent random urine testing and other monitoring procedures that are central to the success of PHPs would be relatively poor, without a powerful incentive such as

the fear of losing one's medical license. Despite such reservations, Caron Treatment Centers in 2012 implemented a continuing care intervention for participants of its residential program that was modeled after PHPs. This intervention, which is called "My First Year in Recovery" (MyFYR), was designed to help clients initiate and sustain recovery, with the goal of promoting overall improved quality of life as well as sobriety. Improved quality of life is defined as physical, psychological and spiritual well-being. The intervention is provided for up to three years post-discharge from residential care.

In this paper, we report initial outcomes from the MyFYR program, with data from 198 clients who received treatment at Caron and began the program, and were eligible to have participated in MyFYR for at least 12 months. The outcomes that are examined are retention in MyFYR and substance use while in the program.

2. Materials and method

2.1. Participants

The study participants were the first 198 clients who were enrolled in the MyFYR program after receiving residential treatment at Caron. All individuals consented to participate in the evaluation study. Only individuals returning home after treatment were included in this study (this is a criteria for participation in MyFYR). At the writing of this paper, sufficient time had elapsed for all of these participants to have been eligible for at least 12 months of MyFYR services, whether they stayed engaged or dropped out.

2.2. The My First Year of Recovery (MyFYR) Program

My First Year of Recovery encompasses six core functions: (1) Integrative care management, (2) Recovery for Life contract, (3) Random urine drug screening, (4) Online Caron Recovery Network, (5) Circle of Support, and (6) Interactive recovery library of curriculum for clients and family. The program currently costs $10,000 for the first 12 months of service. At this point, Caron has a contract with one employer to cover the cost of the intervention. Caron provides needs-based scholarships to about 10% of the clients receiving MyFYR. Most other clients are self-pay. MyFYR is delivered from the Caron Treatment Center's Pennsylvania residential program.

MyFYR is typically introduced in the 3rd of 4 weeks of the 4-week residential treatment program. For clients who participate in extended care treatment (additional 84 days of residential), MyFYR is introduced in the last month of that experience. While the vast majority of clients in the study sample had completed their treatment at Caron, a few entered MyFYR after ending their residential treatment early. Not all clients who were offered MyFYR agreed to enroll in the program. Typical reasons for refusal related to client and family concerns about the cost of the program or client/family deciding that the service would not be of sufficient benefit to them. Data were not available on the refusal rate.

Integrative care management is provided by licensed and credentialed addiction professionals who act as clinical specialists. The clinical specialists provide stability and support throughout the entire first year of recovery. This supportive guidance is accomplished through frequent telephone support calls, which take place several times a

month. In addition, clinical specialists engage clients and family in monthly conference calls to support healthy family interactions and relationships. The monthly conference calls can also include outpatient treatment providers who are working with the client and family directly. Clinical specialists can also provide referrals to programs within the Caron continuum, other outpatient professionals, and the 12-Step community to support personal growth. They play a key role in the coordination of interventions, if and when relapse occurs.

The client, family members, and clinical specialists work collaboratively on the Recovery for Life contract, which is signed as a commitment to wellness. This contract serves as a recovery action plan, highlighting goals and a plan to address struggles. Moreover, it also provides a structure that facilitates proactive efforts to address relapse risk issues before these stressors lead to the onset of actual slip or relapse episode. The contract also outlines an approach to handle relapses, should they occur, with clear, immediate, and meaningful interventions to quickly reengage the client back into actively working the recovery program. The Recovery for Life contract is developed and signed while the person is still in treatment. It is adjusted as needed throughout the MyFYR program.

A key component of the program is personal accountability, as assessed via random urine alcohol and drug screens. When clients first enroll into the MyFYR program, they are randomly screened initially three times a month for alcohol and drug use. The frequency of randomized testing can be adjusted over time, based on clinical progress. For example, additional screens can be added if there are any concerns about the behaviors of the client. Clients are notified to provide a random drug screening through e-notification, text and voice message. A GPS locator provides the client with the nearest location of the independent testing site. Clients receive comprehensive urine drug-screening panels, as well as Ethyl Glucuronide (ETG) for alcohol. The ETG test is able to detect alcohol in urine for up to 3-4 days after a drinking episode. Therefore, it is more useful as a means to monitor alcohol use outcomes than breath tests.

For clients in the Caron system, a relapse is indicated by any use of alcohol or other drugs of abuse, at any level—whether the client’s primary drug of choice or not. If a client or family member reports a relapse, or if the client has a drug- or alcohol-positive urine screen or fails to provide a scheduled urine screen, an agreed upon intervention or response takes place. The first consideration is to ensure the physical health and safety of the client, which may necessitate a trip to the emergency department or treatment program. The next step is a conference call with all family members and professional supports, to gather details about the relapse and develop a plan to move forward. This plan is developed to fit the individual needs of the client who has relapsed. The plan also considers the needs of involved family members, as their well-being is a priority as well. Some relapses require a higher level of care while others require adjustments to the current recovery action plan but do not necessitate a step up in level of care.

Contact with the family increases during and after relapse episodes. It is important to engage family in the program during these times to help them make healthy decisions in response to the relapse. Communication with professional supports increases during a relapse as well.

The MyFYR team provides guidance that supports healthy communication and boundaries. If the client returns to residential treatment or stops participating in MyFYR, the clinical team continues to work closely with the family. Family engagement is considered a critical success factor of the program.

2.3. Caron Recovery Network Web Platform

My First Year of Recovery is situated on a social platform called the Caron Recovery Network. This is a private online forum that allows for communication between clients and families and their clinical specialists. The features of the Caron Recovery Network include: Free flow and question guided journaling; a resource library that has articles on recovery, videos, and blogs; messaging to Caron support team and family members who are engaged; and a “chit-chat” section that allows for posts, comments, and access to support from others in the MyFYR program. The site is user name/password protected. Participants are known by first name and first initial of last name only. All dialog on the site is monitored daily by the staff of the MyFYR program. The platform is only for the use of MyFYR participants, their families, and counselors.

Having a strong Circle of Support is critical for any individual in early recovery and his or her family members. For the client, developing a well-defined support network can promote recovery and enhance wellness. This support network includes family members, outpatient and other healthcare providers, and other third-party representatives such as employers, probation officers and professional monitoring boards. Conference calls with the client and those in her support circle promote open communication, with immediate intervention as needed. If a client disengages from the program at any time, the circle of support will remain engaged to support recovery, which increases the chances that the client will get back on track and continue to make strides in recovery.

The interactive recovery curriculum, which is computer-based, is a structured tool designed to help clients and their family members through the challenges of early recovery. The clinical specialist guides the client and family through the program, which consists of individualized interactions, assistance in implementing coping skills, assigned readings, and audiovisual activities. The content includes topics such as wellness, spirituality, the 12 Steps, parenting and relationships, and is individualized for clients and their family members. This program actively engages family members in their own recovery process. The entire program for families parallels the client experience.

2.4. Assessment Measures

The primary outcome measures for the study were retention in MyFYR and substance use. For clinical purposes, MyFYR makes use of information on alcohol and drug use from the urine toxicology and ETG tests, client self-reports, and family reports. For this initial evaluation, we report on abstinence rates as determined by the combination of all three sources. Although urine toxicology tests are considered the “gold standard” for SUD outcome research, we have found that a significant number of participants do not have any alcohol or drug positive urine samples, yet self-report substance use, or acknowledge use after a family member reports it. Therefore, we have adopted a “worst case scenario”

approach for this paper, in which any indication of use places the participant in the non-abstinent category. We also report urine test results separately.

2.5. Procedures

Data was collected on the first 198 individuals who began the MyFYR program and had the opportunity to have been in the program for at least twelve months, whether they stayed engaged or not. Data was obtained from numerous sources including chart review, client reports, urinalysis findings, and case manager feedback. MyFYR treatment status (i.e., retained or dropped out) was determined by information on discharge status in the clinical chart. Data was updated monthly, based on chart reviews, urinalyses, client self-reports, and case manager reports, up until the client's drop out or completion of the program. This data was analyzed using SPSS.

All participants signed informed consents at entrance into MyFYR, to authorize use of data collected during participation for program evaluation. However, the Institutional Review Board at the University of Pennsylvania indicated that the study was exempt and did not need to be IRB approved, as it made use of de-identified data collected for clinical purposes.

3. Results

3.1. Participants

Data was analyzed from 198 clients (55.1% male) who entered MyFYR between November 2012 and January 2015. The average age of participants was 43.5 years old (range: 20-76). The sample was almost entirely comprised of Caucasians (97.9%), with a few Asian/Pacific Islanders (0.5%), Asian/Indians (1.0%), and Hispanics (0.5%). A total of 57.1% participants (N=112) had at least one diagnosed psychiatric condition in addition to a substance use disorder. Table 1 lists the substances of use prior to entering inpatient treatment; 41.4% participants used more than one substance. The average length of stay in inpatient residential treatment for study participants was 45.8 days (Range: 5-151 days). Clients in the study sample were similar to all adult clients treated at Caron on these variables. However, we do not have systematic data on other factors, including financial means or degree of family involvement in treatment.

3.2. Retention

Out of the 198 clients in the study, 152 (77.6%) completed MyFYR. No significant differences emerged between the group that completed MyFYR and the group that dropped out in terms of gender, age, length of inpatient treatment, substances used prior to treatment, use of multiple substances, or presence of a co-occurring psychiatric disorder. No other baseline variables were available for analyses.

3.3. Substance Use Outcomes

Clients in the program were initially scheduled to provide 3 urine samples per month. Frequency was reduced somewhat over time, if clients were compliant and had negative urines. Otherwise, the higher rate of urine screening was reinstated or continued. Compliance with urine testing was excellent, with 70% of scheduled urine tests successfully

obtained. Overall, a total of 3245 urine samples were provided (i.e., average of 16.4 samples per participant), of which only 133 samples (4.1%) tested positive for alcohol or other drugs.

Out of the 198 study participants, 51 had one or more positive test results. Of those, 21 (39.6%) tested positive only once, 19 (35.8%) had two positive urines, and 11 (24.6%) had three or more positive urines. Alcohol (41.0%) and opiates (28.0%) were the primary drugs that individuals relapsed on based on urinalysis results. Of the 107 individuals who relapsed at some point, 60 (56.1%) had no positive urine samples but self-reported one or more episodes of alcohol or drug use, or acknowledged use that was reported by a family member. Individuals who relapsed were significantly more likely to have an alcohol use disorder diagnosis at intake ($X^2 = 8.0$; $p < .01$). None of the other variables examined (e.g., gender, age, length of inpatient treatment, use of substances other than alcohol, use of multiple substances, or presence of a co-occurring psychiatric disorder) predicted relapse status during the follow-up.

3.4. Relation of Program Completion to Substance Use Outcomes

Individuals who completed MyFYR were significantly more likely to be abstinent during their stay in the program than individuals who dropped out (50.7% versus 31.8%; $X^2 = 4.87$; $p < .04$). The 105 individuals who relapsed were examined in more detail. Of those participants, 75 (71.4%) remained engaged in the MyFYR program after relapse and completed the program. A total of 39 (52.0%) individuals from the group that remained engaged and completed were abstinent at discharge with an average length of abstinence of 5.7 months (Range: 1-11 months). Overall, 76.3% of all individuals who completed the MyFYR program, including those who relapsed at earlier time points but remained engaged or re-engaged, were abstinent at time of discharge from the program, as documented by urine toxicology tests, self-report, and collateral/family report.

4. Discussion

Substance use disorders are seen as chronic in nature for many individuals who suffer from them. Consequently, continuing care interventions have been developed to prevent the onset and limit the severity of relapse episodes following intensive treatment. However, recent research has indicated that overall, most continuing care interventions are only modestly effective (Blodgett et al., 2014; McKay, 2009), which indicates the need to develop new, more effective interventions to support extended recovery. Caron Treatment Centers has developed and implemented a new continuing care program, which is referred to as My First Year of Recovery (MyFYR), which is modeled after programs that have proved effective with physicians and airplane pilots (DuPont et al., 2009). MyFYR incorporates in-person, telephone, and on line services, and provides support via case management, a coordinated circle of recovery, family involvement whenever possible, frequent monitoring of drug and alcohol use via urine toxicology tests, and rapid intervention following episodes of alcohol or drug use or missed urine tests.

Four important conclusions can be drawn from this initial evaluation of MyFYR outcomes. First, program participants were highly compliant with the urine testing component of the intervention, despite the fact that they were asked to provide urine samples frequently, and –

unlike physicians in PHPs— suffered no serious negative consequences if they failed to provide requested urine samples. We are not sure what produced such a high rate of compliance in the absence of significant negative consequences for missed tests, but it may have been related to the close involvement of family members and others in the circle of support. The fact that most clients paid a significant amount of money to participate in the program may have also enhanced willingness to complete each component of it.

Second, rates of alcohol or drug positive urine tests were extremely low, which coupled with the high rate of compliance on urine tests, indicates that outcomes in this program were quite good. In the absence of a randomized design and a control group that did not receive MyFYR, it is not possible to derive an intervention effect size from the data in this study. However, the results are clearly extremely promising.

Third, it appears that the procedures in place in MyFYR facilitated ongoing contact with many clients and their families during and following relapse episodes, and that a significant number of these clients were able to re-establish abstinence following their relapses. About 71% of the clients who relapsed either remained engaged in MyFYR or were quickly re-engaged after a period of no contact, and half of these clients were able to re-establish abstinence following their relapses, with a mean duration of almost six months of abstinence. Therefore, more than a third of clients who relapsed were able re-establish significant periods of abstinence, as documented by multiple random urine tests. Given that retaining clients after they relapse and restoring stable abstinence are major challenges for continuing care interventions (McKay, 2009), these results are very encouraging.

Finally, although monitoring substance use via frequent random urine toxicology tests may have a therapeutic effect and is clearly the “gold standard” for outcome assessments, the results in this study indicate that it is important to also obtain client self reports and collateral reports in order to accurately assess program abstinence rates. Despite that fact that we obtained 7 of every 10 urine screens scheduled and participants provided an average of 16.4 urine samples, over 50% of the episodes of alcohol or drug use in study participants were missed by the urine drug screens and instead identified by self or family reports.

The clients at Caron are typical of clients treated at other higher-end residential programs with a strong “Minnesota Model” orientation, such as Betty Ford and Hazelden. However, it is important to acknowledge that the sample of clients included in this study could not be considered to be representative of individuals seeking treatment for substance use disorders in the USA. The clients in the study were overwhelmingly White, and most had significant financial resources and supportive families who were involved in the treatment. In addition, almost all participants had received at least 28 days of residential treatment prior to MyFYR. It is not clear whether the same results would have been obtained in clients with other characteristics or less family involvement and support, or in those who had completed shorter residential programs or outpatient programs.

This study does have several additional limitations. First, and most important, the study was a naturalistic evaluation, and did not include a randomized control condition. Therefore, we are not able to determine the magnitude of the MyFYR effect, above and beyond standard

care, or versus another type of continuing care. Second, because our abstinence rates were determined by frequent urine testing, it is not possible to compare our outcomes to those in other studies that made use entirely of self-reports to determine outcome, or of a combination of self-reports and infrequently gathered urine toxicology tests. Third, data on longer-term outcomes beyond the period in which clients were actively participating in MyFYR were not available for this report. Finally, the reported outcomes were limited to retention in MyFYR and alcohol and drug use. We acknowledge that there is growing recognition and consensus that "recovery" involves more than abstinence (Betty Ford Institute Consensus Panel, 2007). In subsequent reports, we will present data on a wider range of outcomes, to more fully assess recovery status.

5. Conclusion

In conclusion, these initial results for the My First Year of Recovery continuing care program are extremely promising, as they document high rates of sustained participation in frequent random urine drug and alcohol test monitoring and positive outcome in clients not under the threat of losing a professional license or incarceration. Moreover, the results indicate that clients can be retained in the program after experiencing relapses, and that many clients are able to reestablish abstinence.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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Table 1

Substance Use Prior to Treatment

Substance	N	%
Alcohol	156	78.8%
Opiates	48	24.2%
Marijuana	34	17.2%
Sedatives	33	16.7%
Cocaine	22	11.1%
Amphetamines	17	8.6%

Note: Participants (N=198) could report use of more than one substance