Foundations Recovery Network (FRN) Announces Groundbreaking Opiate Research Study Which Yields Compelling Results

Results validate FRN's system of care approach through patient satisfaction

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The rise in opiate use over the past decade has presented a myriad of issues and opportunities for the substance abuse treatment field. No longer valid is the myth that opiate use is synonymous with chronic heroin use. Individuals who present to treatment for their addiction to opiates are often employed, insured, housed, and motivated for change. The recent passage of parity for insurance coverage of mental health and substance abuse problems will hopefully improve this state of affairs. The inclusion of insurance parity as part of the Affordable Care Act will likely increase the demand for treatment services. While medication-based treatments are becoming increasingly more common, it is important to keep in mind that abstinence-based residential treatment remains a valid and reasonable treatment option.

Opiate Use Statistics

- 400% increase in prescription painkillers from 1999 to 2010 (National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention, 2012).
- In 2011, prescription painkillers are the largest single category of illicit drug use other than marijuana (Substance Abuse and Mental Health Services Administration, 2012).
- The USA and Canada combined account for 6%, 22 tons, of the world's heroin consumption in 2010 (United Nations Office on Drugs and Crime , 2010).
- In 2011, 4.5 million Americans over the age of 12 were current nonmedical users of painkillers and an additional 620,000 were past year users of heroin (Substance Abuse and Mental Health Services Administration, 2012).
- 1.8 million persons suffered from a pain reliever abuse or dependence in 2011 (Substance Abuse and Mental Health Services Administration, 2012).
- Opioid pain relievers accounted for 14,800 drug overdose deaths in 2008 (Centers for Disease Control and Prevention, 2011).
- The societal costs of opioid abuse, dependence and misuse including health care consumption, lost productivity and criminal justice costs and were estimated at $55.7 billion (Birnbaum, 2011).

Significance of Opiate Use - Opiate use prevalence rates remain high in the US. Opiate abuse and dependence have become common diagnoses in the substance abuse treatment industry. In 2011 alone, 1,156,000 people received treatment for opiate abuse disorders and there were 1,677 new initiates to illicit opiate use *each day* (SAMHSA, 2012). The percent of people seeking treatment for nonmedical use of pain relievers more than doubled from 8.7% in 2002 to 19% in 2011 with nearly two-thirds (63.7%) of adults receiving specialty treatment for pain relievers were 26 years of age or older (SAMHSA, 2012). Reutsch (2010) cites statistics that absenteeism among employees with opiate dependence is nearly three times higher than the average employee. The use of opiates also has a tremendous impact on the health of the user. Catalonoa (et al., 2011) found that unlike other drugs, using a prescription opioid nonmedically predicted violence

and some types of crime. HIV and hepatitis risk, as well as premature death, are associated with opiate abuse, even after cessation of use (Butler, 2010).

Historically, individuals who use opiates have been seen as qualitatively different from other users and harder to engage in services than users of other substances. Due to these beliefs, treatment centers have typically looked for innovative, alternative and complimentary treatment methods. Replacement therapies (methadone) have been a traditional intervention; with the change in FDA restrictions, buprenorphine is gaining even wider acceptance and use (Government printing office, 2012; Ling, 2010). This study examines the characteristics and outcomes of over 900 opiate-using patients to determine the impact of abstinence-based residential treatment on substance use patterns and related behaviors.

Study Methods – Nearly two thousand patients took part in the study. All participants were enrolled in residential treatment at three centers treatment centers: La Paloma in Memphis, Tenn.; Michael's House in Palm Springs, Calif.; and The Canyon in Malibu, Calif. Data was collected at intake and again at thirty days, six months and one year post-discharge. Foundations Recovery Network (FRN), a for-profit provider of mental health and substance abuse treatment services, operates all three centers. Services at the centers are all Dual Diagnosis Enhanced based on annual review using the Dual Diagnosis Capability in Addiction Treatment Toolkit (McGovern, 2007). Patients are treated with individualized services tailored to meet their specific medical, psychological and social needs. Treatment typically consists of short-term stabilization including medical detoxification as needed, followed by an average 32-day residential stay for individualized substance abuse and mental health treatment. The patient population is drawn from across the United States and Canada and is largely private pay, from private health insurance or personal funding. All patients entering treatment at FRN residential centers are offered the opportunity to participate in an ongoing study. Patients must sign Institutional Review Board approved consent prior to participation.

Pre- and post-treatment information was collected using the Addiction Severity Index (ASI). The ASI was developed to measure specific problem areas associated with substance abuse and dependence (McGahan, 1986; McLellan, 1992; McLellan, 2006). Questions dealing with specific drug use are phrased to investigate the 30 days prior to the interview; for example, "In the past 30 days, how many days have you used the following?" It has been repeatedly demonstrated to be psychometrically sound and is considered a standard in the industry. Hser (1997) reports the 85.8% rate of congruence between self-report [interviews] and urinalysis in opiate users.

Characteristics of opiate users at admission – Of the 1,972 patients who agreed to participate in research between January 2008 and June 2010, 49.8% reported opiate use within the 30 days prior to admission: 11.8% reported heroin use, 5.4% reported non-medical use of methadone, and the remaining 32.4% reported using "other opiates," which includes nonmedical prescription opiate use. Also, 8.4% of the opiate users reported using more than one type of opiate.

The average age was 32.5 years and 59% were males. Over half (52%) reported being employed in the 30 days prior to admission; however, they also reported only working an average of 10.7 days. Approximately 95.8% reported receiving money from illegal activity in the month prior to treatment. Also in the month prior to treatment, opiate users reported earning an average income of $4,436; the majority (90.0%) spent money on their drug use, an average of 35% of their earned monthly income ($1,465).

Approximately 77.9% of opiate users participated in the follow-up study. At six months post-treatment, 73.2% of opiate users remained alcohol-free and 80.5% of were drug-free. Table 1 reports the average use rates reported at intake and at six months post-treatment.

Table 1.
SUBSTANCE USE PATTERNS-AVERAGE DAYS OF USE

(*n=768*)	**Intake****	**6-month Follow-up****	**Percent Change**
Heroin	5.78	0.80	-86.16%
Non-Medical Methadone	2.14	0.06	-97.2%
Other Opiates	14.67	2.27	-84.53%
Alcohol	8.01	2.30	-71.29%
Alcohol to intox	5.87	1.38	-76.32%
Cocaine	3.31	.17	-94.86%
Cannabis	7.15	1.31	-81.68%
Other Sedatives	6.28	.83	-86.78%
Amphetamines	1.42	.37	-73.94%

*All changes represent statistically significant improvement over intake (*p<.05)*.
**Interview questions reference the 30 days prior to the interview date.

All research participants were asked questions regarding employment, illegal activity, take home pay and drug spending patterns at the six month interview as well. Interestingly, there was no statistically significant difference between baseline and six months in the percent of patients who reported being employed; however, a statistically significant improvement in the number of days worked was found.

Significant change was noted in the percent of money spent on drugs between baseline and the six month interview: At baseline, 90% reported spending money on drug use and only 17% report spending money on drugs at the six month interview. Of the 17% who did spend money on drugs, 90% of them spent less than $50. The average spending was significantly reduced from $1464.93 to $79.86. Significant differences were also noted between baseline and six months with significantly fewer patients making money through illegal activities.

Participation in 12-Step programs is strongly encouraged by many treatment providers, and there is evidence in the literature that attending 12-Step meetings at least once weekly is associated with drug and alcohol abstinence (Florintine, 1999). Approximately 77% of respondents report attending 12-Step meetings at the six-month post-discharge interview, and about half report having a sponsor. Having a sponsor represents the level of engagement in 12-Step programs and may further improve the likelihood of success.

Implications for treatment: This study highlights the effectiveness of abstinence-based residential treatment for opiate dependence on both substance abuse outcomes as well as social indicators, such as employment and spending. The average decrease in the use of any substance overall was greater than 83%, and opiate use overall declined by an average of nearly 91%. Productivity was improved as participants reported working more days on average after treatment, and both spending on drugs and illegal income were lessened significantly as well. These findings are consistent with Ruetsch (2010), who found that individuals who report opiate use are much more likely to be absent from work and have decreased productivity.

The follow-up study includes phone interviews at intake and again at 30 days, six months and one year post-discharge. The lack of statistically significant differences pre- and post-treatment in the percent of patients who report being employed could be seen as an important indicator of the type of patients seen in the private sector versus patients treated for opiate addiction in the public sector. The implications of this finding may translate to a number of areas outside clinical treatment with regard to program planning including the planning and marketing of the length of stay in residential settings. Much of the knowledge base currently was developed in groups with fewer resources, so this study represents a new and relevant contribution.

Employed patients can be a double-edged sword for treatment centers. While employment can improve access to services, especially in light of health care reform initiatives, it may also impact patients' willingness to access or remain in residential treatment for extended periods of time. Moos and colleagues (2003) note, "The duration and continuity of care are more closely related to treatment outcome than is the amount or intensity." Therefore, a more comprehensive continuum of care that transitions patients from inpatient/residential to intensive outpatient and eventually to aftercare may be a more palatable solution for the employed patient seeking substance abuse treatment than simply extending inpatient care. While employed patients may be more likely to have insurance coverage and therefore access to care, they may be less likely to

desire a stay that would extend beyond their employers' paid time-off policies. Both of these factors are important considerations when planning and marketing residential treatment services.

An interesting finding is the type of opiate used by this population. The majority of the patients reported using prescription opiates non-medically. This corresponds with national trends and may represent a whole new type of "addict." Americans continue to use most of the global hydrocodone supply, (99%) (Manchikanti and Singh, 2008), for an increasing number of conditions (Docimo, Manolis and Jones, 2011). Where once opioid therapy was reserved primarily for cancer patients, it is now the treatment of choice in many acute and chronic pain conditions. Extended use may lead to dependence, both physically and psychologically. Treatment centers may need to distinguish between subtle levels of addiction, or types of addicts, in their treatment approaches. This leads to a number of questions regarding distinctions between dependence and addiction and could also impact the pay rates and length of stay approvals from third party payers. Additionally, treatment for opioid dependence or addiction will need to address the chronic pain issues which pre-dated the dependence initially.

In summary, private residential treatment was demonstrated effective in improving outcomes for opiate addicts: substance abuse was reduced, numbers of days working increased, illegal activities were reduced and spending on drugs was also reduced. A majority of the patients reporting opiate use were employed and using prescription opiates nonmedically. Implications for treatment centers include planning service continuums that support a timely return to work as well as addressing the potentially unique vocational and chronic pain needs of this population.

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