

## A Promising Approach for Families of and Young Adults with Opioid-Related Disorders: The Recovery Oriented Community (ROC) Program

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### Abstract

A relatively new approach in addiction treatment is to emphasize long-term follow-up care. However, little is known about the dissemination of this approach with young adults diagnosed with opioid-related disorders. The Recovery Oriented Community (ROC) is designed for families of and young adults with opioid-related disorders. A total of 1,237 family members and 966 clients participated in the ROC program and 77% engaged in formal or informal treatment 90-days after inpatient. Of these participants, 47% did and 40% did not report practicing recovery management skills. Thirteen-percent of participants also reported an alcohol or drug relapse post 90-days. The ROC shows promise as an effective intervention for preventing relapse.

**Keywords:** Opioid-related disorders; Young adults; Recovery oriented community program (ROC)

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During the past decade, prescription drug abuse has emerged as a major public health concern in the United States. The National Institute on Drug Abuse (NIDA) estimates that 52 million Americans aged 12 and older have used prescription drugs for nonmedical reasons at least once in their lifetime [1]. The Monitoring the Future [MTF] survey similarly found that one in 12 high school seniors abuse Vicodin and one in 20 seniors abuse OxyContin [2]. Vicodin and OxyContin are the most commonly abused drugs in adolescents [2, 3]. The Center for Disease Control [CDC] suggests that opioid abuse is the strongest predictor for developing a heroin addiction. In fact, heroin use has more than doubled among young adults aged 18 to 25 years [3]. White males and females, young adults, and individuals from higher socioeconomic backgrounds reported an increase in heroin use from 2002 to 2013 [3-5]. It appears as if adolescents who use opioid pain relievers such as Vicodin and OxyContin for nonmedical reasons are at greater risk for developing an addiction to heroin in young adulthood [5]. There is a pressing need to develop innovative strategies to encourage young adults to seek and engage in treatment [6].

The Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health estimates that 23.5 million individuals age 12 years or older require treatment for an alcohol or a drug abuse problem [7]. Of these individuals,

only 11% of them will receive specialized treatment for an addictive disorder [7, 8]. Treatment research indicates that the number of admissions for heroin and other opioids has increased from 1992 to 2008 [9]. Despite this increase in treatment admissions, the number of drug overdose deaths have doubled in the United States [4]. The majority of overdoses are attributed to prescription drugs with pharmaceutical opioids accounting for most of them [4, 9]. Treatment providers suggest a paradigm shift is required in the delivery of services to promote sustained recovery [10, 11]. Treatment approaches need to shift from an "emergency room model of acute care" to "a model of sustained recovery management" [12].

Addiction researchers similarly suggest that innovative comprehensive treatment approaches be developed to address the opioid drug epidemic in the United States [13-15]. Most treatment research indicates that a family component is necessary for treatment to be effective, particularly with opiate addicts aged 15 to 25 years old [16-20]. Little et al. [21] conducted a randomized pilot study for adolescent drug abusers. Adolescents exposed to family therapy reported less marijuana use compared to those adolescents not exposed to family therapy. Both groups

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did report reductions in alcohol use. O’Grady and Skinner [20] conducted a qualitative comparison of adults diagnosed with concurrent mental health and substance abuse disorders with and without family members exposed to support and education. Their findings indicate that families play a crucial role in the recovery process for adults with concurrent disorders. In contrast, family conflict and low family support contribute to drug use and poor treatment outcomes [20, 22, 23]. Family conflict has been identified as a strong predictor for initial and continued drug use [24-26]. Appel and colleagues et al. [27] similarly found that family conflict was a barrier for entering treatment among injection drug users. Methodological limitations and challenges associated with implementing family interventions in treatment settings may contribute to the mixed findings about the effectiveness of family components for adult substance abusers [28]. One way addiction treatment providers could address some of the barriers for delivering family interventions in treatment settings is to utilize electronic mediums.

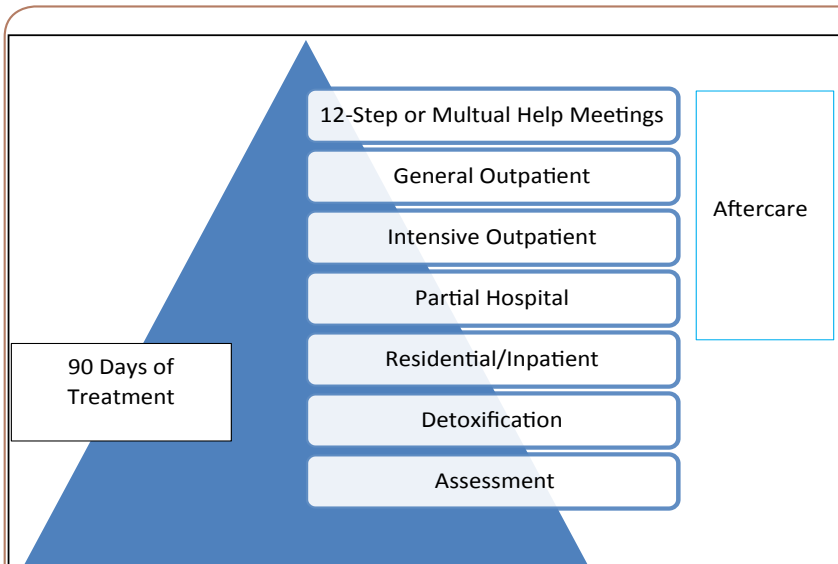
There has been a tremendous amount of research on the impact of computer-delivered treatment approaches for substance abuse [29, 30]. Despite these developments, few studies have designed technology-delivered approaches for family members of substance abusers. In fact, technology-delivered interventions are not an integral part of treatment or aftercare [31, 32]. The goal of this paper is to describe an innovative program that utilizes a technology-delivered intervention to engage families of and young adults diagnosed with opioid-related disorders in treatment and aftercare. Opiate-related disorders refer to use,

intoxication, and withdrawal from a class of substances that act on opioid receptors such as heroin, codeine, and dilaudid (i.e., oxycodone) [33, 34].

## Program Description and Its Usefulness

Malvern Institute was established in 1946 to treat alcoholism and continues to advance the field of addiction treatment through quality care, research, and community outreach. The mission of the Institute is to provide a foundation for lifelong recovery by providing patients with a complete understanding of addiction [35]. Treatment is based on a drug-free philosophy and integrates evidence-based practices with 12-step approaches. Clients are matched with treatment modalities on a clinical continuum model of care with the goal of engaging them in 90-days of detoxification, residential, partial hospital, intensive outpatient, general outpatient, and 12-step meetings or faith-based secular supports as depicted in **Figure 1**. Family education and support services are an integral part of treatment programming in each level of care.

The Recovery Oriented Community (ROC) program is offered free to families of and young adults with an opioid-related disorder. Clients contact the Institute for an assessment and then meet with an intake worker. The intake worker determines whether the client meets the inclusion criteria for treatment using standard clinical protocols (i.e., ASAM). Clients aged 18 to 25 years who meet the criteria for an opioid disorder are referred to either a program offered at the Institute or in the community. In addition, the intake worker describes and inquiries about participation in



**Figure 1** Clinical continuum model of care.

The clinical continuum model of care may include medically monitored detoxification followed by an intensive, structured residential treatment. Residential treatment builds a strong recovery foundation for clients so they can transition to an outpatient level of care. The outpatient phase of treatment includes a partial hospital program, which is formatted to focus on the next steps in the recovery process. The partial hospital program (PHP) can last anywhere between two to four weeks, with a time frame of five hours a day. Clients learn recovery management skills derived from evidence-based treatments and 12-step approaches. Clients decrease their hours as they transition to intensive or general outpatient treatment. Intensive outpatient provides group therapy, psychoeducational groups, and individual therapy sessions for two and half hours a day, three days a week for three to four weeks; while, general outpatient provides group and individual counseling one to two days a week. Clients spend varying amounts of time in general outpatient because the amount of time required is based on the individual’s needs. Family education and support services are an integral part of treatment Topics covered in the family education program include: Codependency, family recovery, and personality traits and 12-step meetings.

the ROC program. Clients who are interested in taking part in the program complete an informed consent form and provide the family member's contact information. This information is given to the ROC manager. The ROC manager sends an email to the family member. Family members who are interested in participating in the program contact the ROC manager either by email or phone. Once the family member responds to the ROC manager they are assigned a ROC coordinator. The ROC coordinator assists family members based on their needs either by text, email or phone depending on their personal preference. All communication is stored in an electronic database.

The ROC manager and coordinators are certified intervention professionals (CIPs). The standards for certification require a post-secondary education, training in ethics and interventions, clinical supervision, and a passing score on an examination [36]. CIPs facilitate interventions, provide guidance and support, and assist with aftercare. The ROC manager and coordinator work together to help families and clients navigate their own recovery. The ROC manager assists with intervention planning, provides referrals, and conducts outreach activities; while, coordinators send text messages, provide online support or email correspondence, and conduct phone calls with families.

The ROC coordinators use open-ended questions to establish a rapport with and gather information about the client from family members. Coordinators' introductory text message, consists of, "hello, this is the ROC team of Malvern. We are here to support and guide families through this difficult process. Here to help. Just ask." Coordinators may send follow-up text messages that include, "we can guide you through the different stages of the recovery process. This includes getting prepared for the discussion with your daughter and her counselor about aftercare and housing arrangements." Families contact the ROC coordinator as often as they need. Examples of their inquiries range from logistical (i.e., why hasn't John been able to call me at home) to treatment issues (i.e., is it a good idea to attend the family session).

The ROC coordinators continue to serve as a resource for family members after the client completes treatment. Follow-up correspondence between ROC coordinators and family members focus on aftercare and recovery. ROC coordinators may send an aftercare text message consisting of: "I haven't heard from you in a while and want to hear how things are progressing." Families respond and provide information about whether the participant is in treatment and drug-free. For instance, "JC is 10 months clean today. She had to go to court and pay a fine. Struggling with finances because of the fine and rent, but she is answering at the phones at the recovery house to reduce the rent. To think she is doing this good is a miracle-thank you for checking in." Other aftercare text messages include: "I am contacting you because I am at a loss. BJ says he is going to meetings but I think he is drinking after I go to bed. He missed a few classes at school too. I'm so confused and don't know what to do." Clients also contact coordinators once they complete treatment so they can obtain resources that will enhance their recovery. The correspondence is stored as a phone call, email or text in an electronic database and the content is coded into an index that measures the participants' level of engagement and recovery. The ROC manager reviews the indexes and makes recommendations about interventions to the coordinators and the clinical team so that they provide the most optimal care within the context of their respective roles.

## Method

### Participants

A total of 1,237 family members and 966 clients participated in the ROC program from December 2013 to July 2015. Of the participants, 67% were male and 33% were female. Most participants (58%) reported opiates as their drug of choice and 40% of them were treated in the young adult (18 to 25-year old) opiate program. The remaining participants identified alcohol (28%), benzodiazepines (4%), and crack-cocaine (1%) as their primary drug of choice. Three-percent of participants and their families reported that they were unsure which substance was their primary drug of choice.

### Measures and procedure

The ROC coordinator gathers data from participants and their family members through text messaging, emails, and phone calls. Most correspondence with families and participants was through text messaging as shown in **Table 1**. Data is gathered with open-ended questions and responses are coded into **Treatment Engagement** and **Patient Recovery Indexes**. The **Treatment Engagement Index** refers to if the participant is in formal or informal treatment at 30 days, 31 to 60 days, 61-90 days, and post 90 days after treatment. The **Recovery Index** refers to the degree to which the participant is utilizing their recovery management skills ranging from unstable to stable. Stable refers to participants who are drug-free and utilizing recovery management skills (i.e., self-help meeting attendance); while, unstable refers to participants who have relapsed, and caution refers to participants who have not relapsed but are not practicing recovery management skills. Mental or psychological relapse is another term for participants who have not relapsed physically but have disengaged from recovery practices [34].

**Table 1** Text messaging, email and phone correspondence.

Electronic Categories	Families n	Clients n
<b>Current Month</b>		
SMS sent	4130	759
SMS received	4003	558
Email sent	31	66
Email received	93	05
Phone calls	111	-----
Phone minutes	2460	-----
<b>Past 30 Days</b>		
SMS sent	4317	1758
SMS received	3367	973
Email sent	17	66
Email received	96	00
Phone calls	123	-----
Phone minutes	2820	-----
<b>Past 60 Days</b>		
SMS sent	2819	1443
SMS received	2820	784
Email sent	2	02
Email received	26	00
Phone calls	92	-----
Phone calls	2505	-----

## Results

Descriptive statistics were calculated for 1,237 family members and 966 clients who participated in the ROC program from December 2013 through June 2015. Seven-hundred and ninety-one participants participated in the ROC program from December 2014 to February 2015. Of these participants, 77% engaged in treatment post 90-days after inpatient as shown in **Figure 2**. Twenty-five percent of participants reported 12-step meetings as their form of treatment and 47% reported practicing recovery management skills post 90-days after inpatient as indicated in **Table 2**. In addition, 175 participants took part in the ROC from March through June 2015. Eight-seven percent engaged in formal or informal treatment after inpatient as also shown in Figure 2. Of these participants, 42% reported attending intensive outpatient treatment 30- and 60-days after inpatient. **Table 2** indicates that 6% relapsed 30-days; while, 4% relapsed 60-days and 11% relapsed 90-days after inpatient.

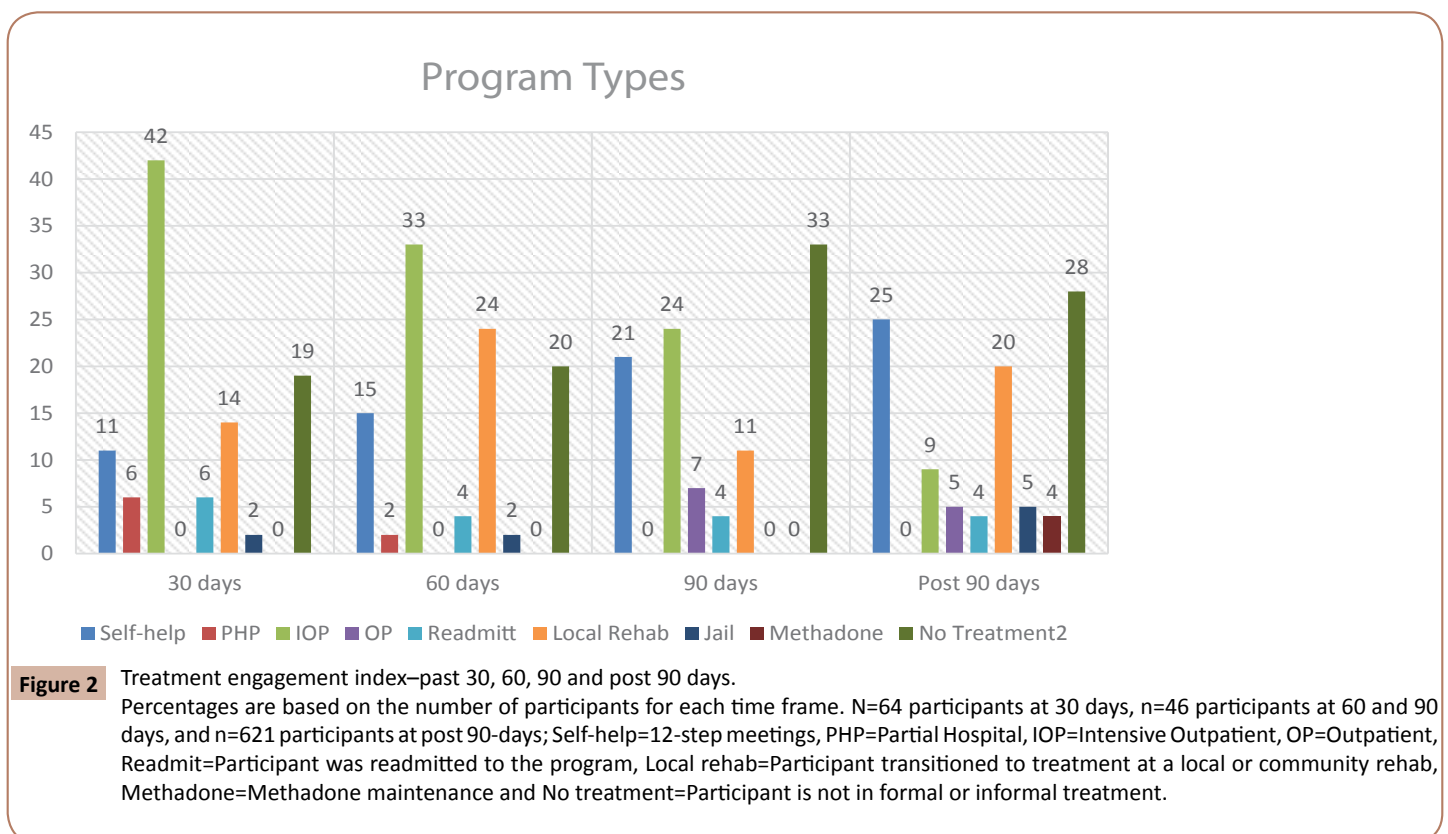
## Discussion

The Recovery Oriented Community (ROC) is an innovative program designed to engage families of and young adults with opioid-related disorders. Most families and participants engaged in the program as demonstrated in the number of text messages, emails and phone calls. More than half of the participants also reported participating in formal treatment 30-, 60-, and 90-days after treatment, consistent with previous research suggesting that alcohol education booster sessions is related to reductions in emergency room visits for alcohol intoxication and improvements in emergency department patient outcomes [37, 38]. In fact, most participants attended intensive outpatient treatment at 30-, 60-

and 90-days after inpatient. Of these participants, less than half of them took part in self-help meetings consistent with previous research that found adolescents are more likely to take part in formal than informal treatment [39]. In contrast, participants with over 90 days of post inpatient treatment increased their participation in self-help meetings and decreased their utilization of professional groups. It appears as if participants transition from formal to informal treatment which may be part of their recovery management plan, thus increasing their attendance at 12-step meetings and congruent with previous research that suggests participation in 12-step or mutual help groups is beneficial for maintaining abstinence after treatment [40, 41]. Slightly less than half of all participants were drug-free post 90-days after completing inpatient as indicated by the patient recovery index. It is plausible that participants who were drug-free are the same participants who engaged in formal treatment longer, consistent with retention studies that found the longer length of stay in residential and outpatient is related to higher rates of program completion and better treatment outcomes [26, 42].

## Conclusion

The ROC is a technology-delivered intervention that shows promise as an effective protocol for engaging families of and young adults with opioid-related disorders in treatment and aftercare. The ROC is based on evidence-based practices in that the participant decides who the point of contact is and perceives this individual as supportive [43]. The implementation of this practice provides families with an opportunity to not only acquire support and resources, but also to gain an in-depth understanding of recovery. In addition, the program is transportable and can be disseminated in various electronic forms. The delivery of



**Table 2** Patient recovery index 30, 60, 90 and post 90 days.

Recovery Categories	30 days (n=65) %	60 days (n=46) %	90 days (n=46) %	Post 90 days (n=649) %
Stable	00	02	09	47
Caution	94	94	80	40
Unstable	06	04	11	13

the program through mobile phones provides a way to reach resource-challenged individuals. Opioid-dependent individuals typically report low incomes and low incomes households are more likely to have access to mobile phones than personal computers [30]. Young adults are also more likely to use mobile phones than personal computers [44, 45]. It is unrealistic to think that young adults with opiate-related disorders are not going to return to familial and social environments after treatment. This particular group of participants are likely to experience additional challenges as they resume their lives and return to institutions of

higher education in which drinking alcohol is part of the cultural and social norm [46]. Therefore, the ROC has the potential to serve as a relapse prevention strategy in aftercare.

Additional research on the ROC is warranted. The next step in this area of research is to conduct a qualitative study to identify the reasons for and patterns of correspondence. A content analysis of text messages and email correspondence would provide clinicians and researchers with information about who is likely to use the ROC, what information they are seeking, and how this information is or is not helpful. Researchers may also want to include administrative data in future studies so that can make comparisons about engagement and recovery for different groups of participants (i.e., gender). Standardized measures (i.e., Addiction Severity Index) should also be incorporated to ensure the reliability and validity of engagement and recovery reports. If these suggestions were to be utilized, this would make an interesting study.



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