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Feasibility of a Supportive Other Intervention For Opiate Dependent Patients Entering Inpatient Detoxification

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Abstract

Involvement of supportive others (SOs; defined as patient's most important person) in substance treatment is widely accepted as a valuable addition to substance use treatment, but is not routinely implemented during inpatient detoxification for opioid use disorders. The current study explores the feasibility of a brief SO intervention for individuals detoxing from opioids. Data regarding ability to identify an SO, the nature of the SO relationship, and willingness to invite an SO to help with long-term abstinence were collected from 369 patients attending inpatient opioid detoxification. For those unwilling to participate in an SO intervention, possible barriers to participation were examined. Results indicated the majority (71.8%) of patients were willing to involve SOs, and that they believed that their SO was supportive of their treatment (88.1%). Those unwilling to invite an SO reported that their identified SO was a young child or that they wanted to make life changes independently. We conclude that SO involvement in substance use treatment at the time of opioid detoxification is feasible and could be engaged in future interventions.

Keywords

Barriers; detoxification; feasibility; opiate dependence; significant other

In 2013, an estimated 2.1 million Americans met criteria for an opioid use disorder (SAHMSA 2015). Many individuals with opioid use disorders seek inpatient detoxification services as a first step to long-term abstinence. Despite evidence that detoxification without additional psychosocial management is insufficient (Marsh et al. 2005; Amato et al. 2011), aftercare—including both pharmacological and behavioral approaches—may be limited by logistical, financial, and attitudinal barriers. Patients who are exiting opioid detoxification may benefit from the emotional, as well as instrumental support of a supportive other (SO) to help to sustain commitment to the long-term treatment requirements of both psychosocial

and medication maintenance treatments, but few SO interventions have been tested among opioid patients.

Brief interventions involving an SO and administered during detoxification have been shown to benefit patients with other substance use disorders, particularly alcohol use disorders (Timko et al. 2015). In one trial, a brief family intervention (BFI) delivered during inpatient detoxification (detox) was adapted from other family interventions (Johnson 1986; Picard 1989) in Japan for use during alcohol detox (Ino & Hayasida 2000). Family members participating in this intervention were directed to express their concern for the patient and their desire to support ongoing treatment efforts following the inpatient stay. The intervention was delivered to a select (i.e., nonrandom) group of the patients who were assigned to one of two groups (the second group did not receive the intervention). Those not able to complete the in-person meetings instead wrote a letter of the same content. Patients and spouses in the intervention group who lived together ($n = 81$) attended more aftercare treatment and had higher rates of abstinence at 2-month follow-up than patients who were in the non-intervention group ($n = 90$). As this was not a randomized controlled trial, and as not all patients in the intervention group completed the intervention, these findings provide only preliminary support for this approach.

More recently, O'Farrell and colleagues developed a BFI involving a single session with a family member during inpatient alcohol detoxification (O'Farrell et al. 2007; O'Farrell et al. 2008; O'Farrell et al. 2008) which focused on reviewing and developing aftercare plans for patients living with a family member in order to improve aftercare participation following detox discharge. They compared this one-session intervention to treatment as usual (TAU) in a small ($n = 46$) randomized trial of alcohol dependent patients who lived with a parent or partner. Nine of the 24 patients randomized to the BFI condition (37.5%) had an in-person meeting and another 13 (54.2%) had a phone conference with their family member. Participants randomized to the BFI were more likely to attend aftercare in the 3 months following discharge than those who completed detox TAU (92% vs. 62%).

The only previous study of SO interventions targeting aftercare among opioid users examined an intensive family treatment called Community Reinforcement and Family Training (CRAFT; (Brigham et al. 2014). CRAFT works with SOs (defined in this study as relatives or partners that live with or plan to live with the identified patient after randomization) to encourage treatment-resistant individuals with substance use disorders to engage in aftercare (Meyers, Smith & Miller 1998; Kirby et al. 1999; Miller, Meyers & Tonigan 1999; Meyers, Smith & Lash 2003; Meyers, Roizen & Smith 2011; Brigham et al. 2014). CRAFT involved 12 weeks of hour-long meetings, with the first 2 sessions involving the dyad, and the final 10 involving the SO alone. Fifty-two dyads were randomized to CRAFT ($n=28$) or TAU ($n=24$). Results from this pilot study indicated that among dyads in which the SO was a parent, CRAFT has a large effect on both treatment engagement and substance use outcomes (hazard ratio = 0.40; $p < .001$); effects trended towards significant for other types of supportive others (hazard ratio=0.57; $p=0.06$). This study suggests that involving SOs may be efficacious for reducing substance use after detox; however, the number of sessions required of SOs may be problematic for implementation.

Despite preliminary data supporting the value of involving SO's in substance treatment more generally (Klostermann & Fals-Stewart 2008), and more specifically in the utility of engaging SO's to enhance aftercare treatment following detoxification (Ino & Hayasida 2000; O'Farrell et al. 2007; Brigham et al. 2014; Timko et al. 2015), no survey data exist regarding the proportion of patients in opiate detoxification who are able and willing to involve SO's during opioid detox so as to promote long-term abstinence. Further, existing studies do not directly examine reasons for disinterest or dropout. Knowing these reasons might allow SO interventions to be tailored most effectively.

In preparation for evaluation of a brief SO-involved aftercare intervention to be initiated during opioid detoxification, we investigated barriers and feasibility to such an intervention. Persons entering an inpatient opioid detoxification program provided information as to whether they were able to identify an SO, willingness to invite an SO to participate in their aftercare, and about the nature of their relationship to their identified SO. Possible barriers to participation were explored for individuals disinclined to participate in an SO intervention, and basic predictors of willingness to involve an SO were described.

Methods

Recruitment

Between September 2014 and May 2015, all consecutive persons seeking opioid detoxification at an inpatient detox facility were approached to participate in a survey research study. This treatment facility provides evaluation and withdrawal management for opiate use disorders, and has a mean length-of-stay of 4.9 days using a methadone taper protocol, as well as individual and group counseling and case management. Given the brief length of stays, patients were approached within the first 24 hours of admission to this treatment center to provide sufficient time for participation. Service providers were aware of the ongoing study, but were not involved in sample recruitment.

Of the 434 patients admitted during these 9 months, 23 (5.3%) were unable to be approached before their discharge or transfer to a different unit, and 30 (6.9%) refused participation, leaving a final study sample of 381 participants who were 18 years or older, English-speaking, and able to provide verbal informed consent as approved by the Butler Hospital Institutional Review Board. These persons completed a 15-minute face-to-face research interview administered by non-treating research staff.

Measures

Demographic Characteristics—Demographic characteristics assessed included age, gender, race/ethnicity, employment status, and years of education.

Substance Use—Participants were asked how many days they had used alcohol, heroin, other opiates, non-prescription buprenorphine or methadone, and benzodiazepines in the prior 30 days, and whether they had injected drugs in the past 30 days (yes or no). Participants were also asked whether their nominated SO used opioids (yes or no).

Treatment—Participants were asked whether they were currently enrolled in methadone or buprenorphine maintenance treatment (yes or no), and whether they had ever been prescribed this form of treatment (yes or no). Participants were also asked whether they had been in opioid detoxification previously (yes or no), and if yes, how many times.

Supportive Other—Participants were asked to nominate “the person who is most important to you,” from a list of relationships which included partner, ex-partner, immediate family (e.g., mother, father, sister, brother or child), extended family (e.g., aunt, cousin), friend, co-worker, and “I can’t think of a person.” They were asked how frequently they had contact with this SO and whether their SO used opiates; response options ranged from daily to not in the past three months. Participants also reported whether their designated SO knew they were in detoxification. Participants were also asked how supportive their SO would be of this detoxification (response options ranged from strongly supportive to strongly opposed), and if they were willing (yes or no) to ask the SO “to be involved, either in person or by phone, during detox, to help you remain abstinent after you leave.”

Barriers to SO involvement—Participants who reported that they were not willing to ask their SO to be involved were provided a list of possible barriers to SO involvement. Items were guided by an earlier investigation of barriers to treatment involving an SO (Schonbrun et al. 2011) that demonstrated the importance of barriers to treatment involvement at the patient, SO, and dyad level. Participants were allowed to select all barriers that applied, or to fill in their own response.

Results

Participants averaged 31.9 ($SD=9.2$) years of age. Most (70.1%) were male, 85.8% were non-Latino Caucasian, 2.6% were African-American, 6.9% were Latino, and 4.8% were of other racial or ethnic origins. More than three-quarters (80.9%) of the sample was unemployed. Participants reported an average of 12.0 (± 1.7) years of education.

Most (85.0%) participants reported that heroin was the primary drug from which they were detoxing; 11.4% were detoxing from prescription opioids, and 3.6% from methadone or buprenorphine. Two-thirds (66.8%) endorsed having injected drugs in the past 30 days. Average age when participants first began using opiates was 21.69 years ($SD=7.05$), and 67.3% reported having been in detoxification for opioids prior to the current stay, with a mean of 6.5 ($SD=13.9$) prior detoxification episodes. Many participants (41.6%) had been prescribed buprenorphine previously, and 35.8% had been prescribed methadone.

Almost all participants (96.9%) were able to nominate an SO; 2.6% reported that they could not think of a person, and <1% of responses were missing; we found no differences in willingness to involve SO by gender ($p=0.6$). The following results are based on the 369 participants who nominated an SO.

Most participants (71.8%) reported that they had contact with their SO on a daily basis; another 20.9% reported contact at least once a week. Almost two thirds of SOs (63.8%) were immediate family members, and 26.0% described their SO as a partner. Smaller

proportions of the sample described SO's as ex-partners (1.6%), extended family (1.6%), or friends (3.9%).

According to participants, the majority (82.4%) of SOs did not use opioids and 78.1% of SOs knew about the patient's current detoxification program entry. When asked how supportive their SO would be of their entry into detoxification, 82.7% endorsed 'strongly supportive'; another 5.4% endorsed 'supportive'. Overall, 71.8% of the participants reported that they were willing to involve their SO in their treatment in person or by phone (26.3% were not, and 1.9% did not respond to this item). Participants were more likely to be willing to involve SOs based on SO type (i.e., current partner, immediate family member, and 'other'; $\chi^2=24.9$, $p<0.00$), with the greatest willingness favoring current partner (91.8%), followed by 'other' (76.9%), and finally immediate family members (65.3%).

For the participants who were not willing to involve their SOs (26.3%; $n=100$), we asked a series of questions to explore barriers to involving this person in treatment (Table 1). Items that were endorsed by a larger portion of the sample unwilling to involve SOs included wanting to make changes alone (22.0%; $n=22$), not wanting to be an inconvenience or burden their SO (21.0%; $n=21$), not wanting the SO to know they were in detoxification (17.0%; $n=17$), and not wanting an SO to observe them undergoing treatment (17.0%; $n=17$); participants could endorse multiple reasons. When asked for any other reasons they would not be willing to involve their SO in treatment, almost half (48.0%; $n=48$) of the participants unwilling to involve SOs used the fill-in option to report that their SO was a child too young to be involved.

Because almost half of the participants unwilling to involve an SO nominated a young child as an SO, we took a closer look at the impact of this choice. There was no difference by gender in choosing a child as an SO ($p=0.12$). However, excluding those who chose a child as an SO, the difference in whether women (89.4%; $n=84$) were more likely than men (80.5%; $n=190$) to be willing to involve an SO in their treatment trended towards significant ($\chi^2=3.74$, $p=.05$).

We further examined only the participants who did not select a child as their SO to better understand predictors and possible causes of unwillingness to involve a non-child SO. Table 2 presents the multivariate logistic regression model excluding participants who nominated SOs who were too young to be involved. Results from this model indicated that participants with more education were more likely to be willing to include SOs (OR=1.22; CI: 1.01–1.48), and participants were more likely to be willing to involve SOs when the SO knew the participant was in detoxification (OR=9.18; CI: 3.86–21.85).

Discussion

This study explores the feasibility of and barriers to involvement in an SO-involved intervention targeting individuals undergoing opioid detoxification. Results from the current study are promising for SO interventions insofar as the majority of patients were able to name an SO who was not using opioids, and described their SO as being supportive of and willing to participate in recovery efforts. Most SOs were immediate family members or

partners, suggesting emotionally close relationships, and validating reliance on partners and family members as the designated SO's in previous interventions (Ino & Hayasida 2000; O'Farrell et al. 2008; O'Farrell et al. 2008; Brigham et al. 2014). Most patients described regular and frequent contact with SO's, indicating that both the emotional and logistical support of SO's was accessible for many patients.

Almost three quarters were willing to have their SO be involved in their treatment. These data may underestimate the feasibility/willingness of involving an SO in treatment, because we defined the "SO" as one's most important person and focused our inquiry on that person.

Among the remaining quarter of the sample unwilling to involve their SO in treatment, the most commonly endorsed barrier was that it would be inappropriate to involve their SO because the SO was a young child. This finding likely impacted the ordering of willingness to involve SO by SO type, which found immediate family members to be in the lowest ranked category. Because one objective of this feasibility study was to explore involving SO's other than family members or partners, it is notable that so many patients nominated young children, and not adult SOs. This may have been due to the way we asked the question: "Thinking of the person who is most important to you, is this person..." The answer option for immediate family members merged mother, father, brother, sister, and child together in this category. Future investigations characterizing the broader social support network of patients in opioid detoxification will be important.

Other commonly endorsed barriers to SO involvement included patients wishing to engage in treatment autonomously, wanting to protect themselves from the possible judgment or embarrassment that could come from involving an SO in their substance treatment, and having concerns about inconvenience or burdening an SO. These findings are consistent with previous research exploring barriers to engagement in substance use treatment similarly which highlight themes of desire for independence, shame, and concerns about SO burden (Tsogia, Copello & Orford 2001; Rapp et al. 2006; Xu et al. 2007).

Some of the items generated from previous qualitative work on barriers to SO-involved treatment were not endorsed by the current sample. For example, despite low rates of employment (only 19.1% employed full- or part-time), only 7.0% of our sample endorsed logistical problems frequently linked to financial well-being (such as transportation or childcare) as a barrier. Relationship concerns, including worries that blame or criticism would take center stage during an intervention, or that the intervention would be bad for the relationship were endorsed by 3% and 5% of the sample, respectively. It would be helpful to collect data characterizing the relationship and the manner in which substance use impacts the relationship.

In our investigation of predictors of willingness to include an SO that excluded participants who nominated a young child as their most important person, willingness was significantly influenced by participants' years of education, and by whether the SO was already aware of the participant's detoxification stay. Regarding the finding of the importance of SOs awareness of participant's detoxification, it is likely that these SOs were already somewhat involved in the participant's treatment, making it easier for participants to consider

increasing their involvement further. This finding is consistent with the general premise of a SO intervention in that SOs already involved in the participant's lives may offer a support network that can be activated.

Although the present study provides a favorable view of the feasibility of an SO intervention delivered in a detoxification facility, there are a number of study limitations. First, data were collected during a screening interview conducted soon after admission and this single time-point provides only a snapshot into the lives of detoxification patients; results might have differed if patients had been interviewed later in their stay. Second these data were collected at a single detoxification facility in a predominantly Caucasian, under-employed population in the Northeast, and it is unclear how they generalize to other populations. Third, because this is a feasibility survey, we do not know what proportion of SOs might actually be mobilized to participate in an intervention if one were offered.

Nonetheless, these data suggest that an SO intervention delivered during a detoxification stay is feasible and acceptable to the majority of opioid detoxification patients. The value of involving family or other close supportive persons in substance use treatment, and specifically in the maintenance phase of treatment (i.e., after initial detoxification) has become increasingly accepted as a component of treatment in alcohol detoxification settings (Timko et al. 2015), and has been documented as an factor in general treatment for substance use disorders (Rounsaville & Kleber 1985; Riehmman et al. 2003; Lin, Wu & Detels 2011; Day et al. 2013; Cavaola, Fulmer & Stout 2015; Hser et al. 2015; Timko et al. 2015). Findings from the current study suggest that many patients in an opioid detoxification program are open to involving their SO in their treatment during their inpatient stay.

Given the importance of activating patients' support networks in enhancing opioid detoxification aftercare, it may be important to explore various methods of enhancing SO and peer support. Indeed, it may be helpful to consider the possibility of linking patients to twelve step groups or other sources of sober support when no SO is available, or when the SO is a substance user (Riehmman et al. 2003). For those who do have a SO who is not actively using opioids, capitalizing on this existing social support network in opioid disorder recovery (Williamson et al. 2007; Scherbaum & Specka 2008; Cavaola, Fulmer & Stout 2015; Hser et al. 2015) may be a way to improve outcomes following detoxification discharge. Testing the effectiveness of a brief SO intervention to enhance long-term care remains a goal for future research.

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Table 1**Barriers to SO involvement**

Item	Percent Endorsing (n=100)
<i>Other</i> *: SO is a young child	48.0%
I want to make changes by myself	22.0%
I don't want to inconvenience or burden them	21.0%
I don't want them to know I am in treatment	17.0%
I don't want them to see me in treatment	17.0%
I would feel too guilty or ashamed	11.0%
They would feel uncomfortable in this treatment setting	11.0%
I don't want them to see me fail at staying drug-free after I leave	9.0%
Having them here would take away from my focus on my own treatment or recovery	9.0%
They may pressure me to do more treatment than I want to do (e.g., medication)	7.0%
I don't want to have sessions with this person and do more treatment than I am already doing	7.0%
Scheduling, transportation, or childcare issues make it too difficult	7.0%
Having them here would be bad for our relationship	5.0%
They would not be helpful	4.0%
The problem is not bad enough that they need to come in	4.0%
Seeing them would trigger me to want to use	3.0%
They would worry about their privacy in this kind of treatment setting	3.0%
We would just blame or criticize each other	3.0%
They would not be interested	2.0%
I know they would not want to be involved	1.0%
They do not think I have a problem	1.0%

Note:

* refers to an item where respondents were permitted to generate their own barrier.

Table 2Predictors of willingness to involve a non-child SO in treatment (n = 308)^a.

Predictors	Adj. OR (95%CI) ^b	p value
Participant age	0.98 (0.94; 1.02)	.34
Participant race (Caucasian v. Other)	0.50 (0.16; 1.55)	0.23
Participant gender (0 = female; 1 = male)	0.50 (0.21; 1.17)	.34
Participant education (in years)	1.22 (1.01; 1.48)	.04
Participant past 30 day drug injection	0.93 (0.43; 2.02)	.86
Participant detoxing from heroin (vs. another opioid)	2.31 (0.92; 5.80)	.07
Participant previous detox attendance	1.14 (0.51; 2.56)	.74
SO who uses opiates	0.72 (0.29; 1.79)	.48
SO knowledge of patient detox	9.18 (3.86; 21.85)	.00
SO type (excluding children)		
Immediate family vs. current partner	0.48 (0.20; 1.14)	.10
'Other' vs. current partner	0.37 (0.10; 11.71)	0.12

^aExcludes the 48 patients who were unwilling to involve the SO because the SO was a child and participants with missing data and participants with missing data.