Opioid Dependence Treatment Outcomes Improve with Addition of Structured Patient Support Program

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Background

- Opioid dependence results when people abuse legal or illegal opiates in increasing quantity and frequency, thereby developing a tolerance
- In the United States, there has been a steady increase in both the number of people who abuse and become dependent upon opioids (SAMHSA, 2007)
- Hundreds of millions of health care dollars are disbursed every year on untreated and under-treated opioid dependence (White et al., 2005; and Kaur et al. 2008)
- Existing treatment options for opioid dependence have mixed results

  -Abstinence–based approaches are characterized by cycles of detoxification and periods of abstinence and relapse (Bell et al., 2006; Matthews et al., 2006)

  -Replacement-based approaches result in relapse rates that are less than half of that of abstinence therapy patients (Amato et al., 2005)
- Support systems and counseling are important ancillaries within the addiction treatment paradigm, but little formal research on their effectiveness has been done
- Studies that tested the effect of combining verbal therapies with replacement therapy have been promising, including behavioral or CBT oriented interventions (Jan et al., 2009) as well as minimalistic patient support programs (Bickel et al., 1997)
- The focus of this study is to better understand the influence of a telephonic patient support program on:

  1) compliance with buprenorphine-medication assisted therapy (B-MAT)

  2) drug abuse, psychiatric functioning and medical issues

  3) and whether these effects are maintained for 6 months
- It is hypothesized that the relationship between this support program and patient problem severity will be mediated by compliance with B-MAT

Methods

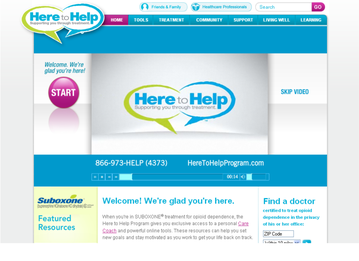
Sample

- 470 buprenorphine-waivered physicians in 40 states were contracted and trained for participation in the study
- 2,194 new Buprenorphine patients were recruited between 10/6/08- 2/10/09
- A total of 1,426 buprenorphine patients were: 1) recruited, 2) randomized to group and 3) completed a valid baseline survey

-58% Male -88% White -56% Never married
-60% Employed Full-Time -33% Commercially Insured
- intervention group: n = 987
- standard care control group: n = 439

Intervention

- The intervention was the HereToHelp™ program, a confidential, outbound, telephonic support program for patients receiving buprenorphine treatment for opioid dependence
- As part of the intervention, a "Care Coach" contacted their patients up to 8 times during the first 3 months of treatment and provided encouragement, helped locate appropriate providers, and facilitated treatment problem resolution
- Participants were also encouraged to use the HereToHelp™ website and could access it any time during treatment (www.heretohelpprogram.com)



Measures

- All subjects completed the Addiction Severity Index (McLellan et al., 2006) at the time of enrollment, and at 1, 2, 3, and 6 months post-enrollment
- The Addiction Severity Index (ASI) is a semi-structured interview designed to detect and measure potential treatment problems in seven areas commonly affected by drug and alcohol abuse:

  -Drug -Employment -Alcohol
  -Legal -Family -Psychiatric
  -Medical

Procedures

- Surveys were collected over the phone at baseline, and at 1, 2, 3, and 6 month post-baseline
- Patients received $25 for enrolling, $25 for each of the first 3 surveys, $50 for the last 2 surveys, and a $25 bonus for completing all 5
- Phone calls and email and postcard reminders were used to maximize patient retention in the study

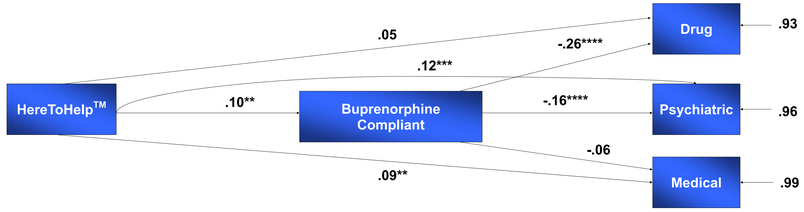
Data Analysis

- To test the causal ordering of the level of intervention, buprenorphine compliance and health outcomes, path diagrams were constructed
- Subjects assigned to the HereToHelp™ program were included in the analysis
- Compliance with buprenorphine, defined as taking the medication at least 22 days of the previous 28, was regressed onto the number of care coach calls via logistic regression
- The drug, psychiatric, and medical composite scores of the ASI were each regressed onto compliance and care coach calls via linear regression
- Analyses were conducted on 3 month (n = 623) and 6 month (n = 607) outcomes

Results

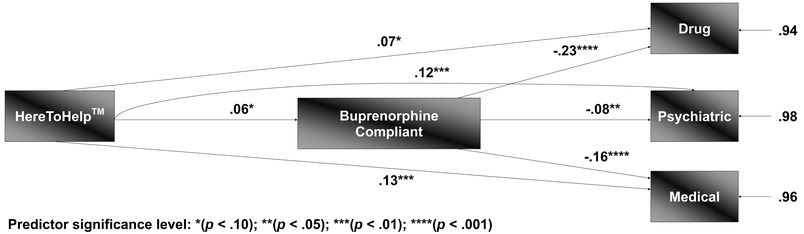
Month 3 Results

- The intervention group was overall accepting of the HereToHelp™ intervention, with over 65% taking calls (Figure 1)
- Number of care coach calls predicted buprenorphine compliance (β = 0.10, p = .02)
- Buprenorphine compliance predicted drug use (β = -0.26, p < .001) and psychiatric functioning (β = -0.16, p < .001)
- Number of care coach calls also predicted psychiatric functioning (β = 0.19, p = .003) and medical problems (β = 0.09, p = .026)



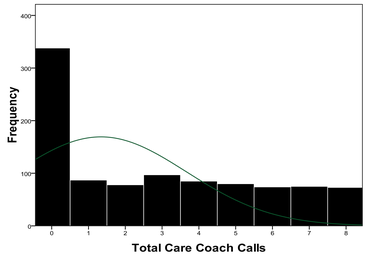
Month 6 Results

- Number of care coach calls did not significantly predict buprenorphine compliance (β = 0.06, p = .077)
- Buprenorphine compliance predicted drug use (β = -0.23, p < .001), psychiatric functioning (β = -0.08, p = .044), and medical problems (β = -0.16, p < .001)
- Number of care coach calls did predict psychiatric functioning (β = 0.12, p = .005) and medical problems (β = 0.13, p = .002)



Predictor significance level: *(p < .10); **(p < .05); ***(p < .01); ****(p < .001)

Figure 1. HereToHelp™ Calls Accepted



Conclusions

- At month 3, greater HereToHelp™ involvement was predictive of buprenorphine compliance, which in turn, was predictive of low drug and psychiatric composite scores
  -The direct effect of HereToHelp™ involvement on psychiatric & medical composite scores was significant
- At month 6, HereToHelp™ engagement was no longer predictive of compliance, which significantly predicted drug, psychiatric, and medical composite scores
  -The direct effect of HereToHelp™ involvement on psychiatric & medical composite scores was significant
- The indirect effect of HereToHelp™ on patient treatment outcomes was generally stronger than its direct effect, indicating a mediation by compliance, and thus supporting the primary hypothesis
- Overall, results indicated that the HereToHelp™ effect on compliance was stronger during the program than after its cessation, and though the HereToHelp™ effect is less influential at month 6 than month 3, the effect between compliance and drug abuse remains strong
- One limitation is the large amount of variance in composite scores unaccounted for by the models
- Results are consistent with other findings on the effect of patient support programs on patient treatment outcomes (McLellan et al., 1998; Dolor et al.)

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