Differences in Opioid Dependence Severity by Health Insurance Ameliorated by Month Six of Buprenorphine Treatment

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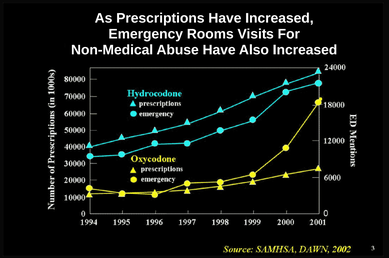
Background

- Opioid dependence results when people abuse legal or illegal opioids in increasing quantity and frequency, thereby developing a tolerance
- During recent years, there has been a steady increase in both the number of people who abuse and become dependent upon opioids (SAMHSA, 2002)



- The most recent census estimate in 2008 indicated that 15.4% of Americans, or 46.3 million people, do not have health insurance (U.S. Census Bureau)
- It is well known that uninsured individuals have an increased likelihood of having drug/alcohol dependence (Wu, Kouzis & Schlenger, 2003) , and have the most difficulty accessing drug abuse & mental health care services (Wu, Kouzis & Schlenger, 2003; Wells et al., 2002)
- The most commonly used medications in opioid replacement therapy are methadone and buprenorphine
- Buprenorphine/buprenorphine-naloxone is a newer form of replacement therapy designed to minimize abuse and diversion while retaining all positive aspects of methadone
- The purpose of this exploratory study was to investigate the effect of buprenorphine-medication assisted therapy (B-MAT) in opioid dependent patients with different types of health insurance
- It was hypothesized that any differences between opioid dependent patients as a function of health insurance status would be ameliorated after 6 months of B-MAT

Methods

Sample

- Buprenorphine-waivered physicians (N=470) in 40 states participated as Study Participant Recruitment Sites
- New B-MAT patients (N=2,194) were recruited between 10/6/08- 2/10/09
- The study sample (N=1,426) were those B-MAT patients who completed a valid baseline survey

-58% Male -88% White -56% Never married
-60% Employed Full-Time

Insurance Status

-32.8% commercially insured
-28.7% no insurance
-24.7% other insurance
-13.8% Medicare/Medicaid

Measure

Addiction Severity Index

- All subjects completed the Addiction Severity Index (ASI, McLellan et al., 2006) at the time of enrollment, and at 1, 2, 3 and 6 months post-enrollment
- The 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

- For each of the seven functional areas, a composite scores is computed
- Each composite score is a sum of answers to several questions within an ASI problem area
- Composite scores range from 0.00 to 1.00, with higher scores indicative of greater problem severity

Procedures

- Surveys were collected telephonically at baseline, and at each of the four follow-up measurement points
- 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 surveys
- Telephone calls, emails and postcard reminders were used to maximize patient retention in the study

Data Analysis

- The 24.7% of the sample who indicated "other insurance" were excluded from analyses
- Patients who indicated that they were Medicare/ Medicaid beneficiaries were combined with the uninsured and compared to the commercially insured
- A within-subjects repeated measures ANOVA examined overall sample improvement in composite scores over time
- Insurance groups were then compared on each of the 7 composite scores at baseline and at month 6 by student's t-tests

Results

- There were no statistically significant differences between insurance groups on the drug, medical, or family composite scores at baseline or month 6 (p's > .20)
- Within-subjects ANOVA revealed that composite scores significantly decreased from baseline to month 6 with the exception of the employment composite score (p's < .001; Figure 1)
- At baseline, subjects in the Medicare-Medicaid/No Insurance group had significantly higher legal, psychiatric, and employment ASI composite scores, indicative of greater problem severity in all 3 of these areas (p's < .05; Figures 2-4)
- Commercially insured subjects had statistically higher alcohol composite scores at baseline (p < .05; Figure 5)
- At month 6, there were no longer any differences between the two groups on the legal and psychiatric composites (p's > .05), yet the differences on employment and alcohol composite scores remained (p's < .05 Figures 2-5)

Figure 2. Legal Composite Score

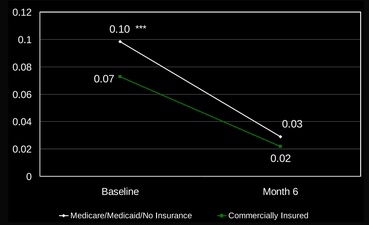


Figure 3. Psychiatric Composite Score

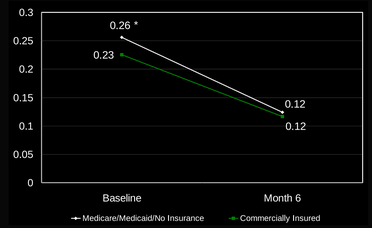


Figure 4. Employment Composite Score

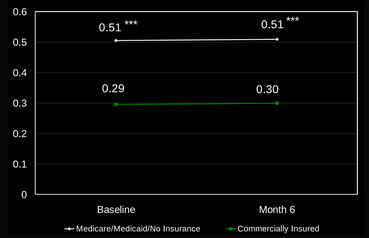


Figure 5. Alcohol Composite Score

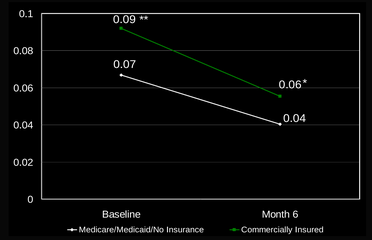
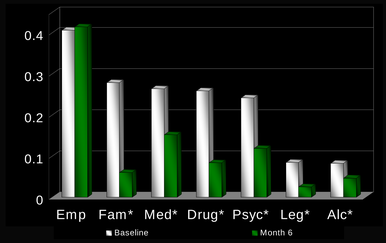


Figure 1. Within-Subjects Effects



Conclusions

- Overall, B-MAT appears to have a positive impact on many areas of the opioid dependent patient's life
- Four of the 7 ASI composite scores were significantly different between insurance groups at baseline: legal, psychiatric, employment, and alcohol
- After six months of B-MAT, differences in the legal and psychiatric composite scores were eliminated, indicating a positive effect of B-MAT in these areas, while differences in the employment and alcohol composite scores remained
- This is the first known study to show differences in outcomes by health insurance type in a sample of opioid dependent patients, & to demonstrate the effectiveness of B-MAT on minimizing the effects of these differences
- Researchers in other disease states such as diabetes (Glasgow et al. (1997), and prostate cancer (post-treatment, Penson et al., 2001) have also shown reduced quality of life in patients with no insurance or Medicare/Medicaid compared to commercially insured
- Future research is needed to elucidate why only certain differences between insurance groups disappeared after 6 months of treatment while others remained, and to investigate whether the sequela of other types of substance abuse (e.g., cocaine, alcohol) differ based on one's health insurance type

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