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Introduction

The pharmacological effectiveness of methadone in the opiate-addicted population continues to show strong evidence supporting the importance of methadone maintenance (Greenwald, 2002; Hartel et al., 1995).

Research studies have suggested that the therapeutic nature of counseling has a positive effect on methadone maintenance patients' sobriety and criminality (Gossop, et al., 2006; Hagman, 1994; Joe, et al., 2001; McLellan et al., 1988; Simpson, et al., 1997).

Despite the extensive literature on the importance of counseling and counselor-patient relationships in the treatment success of methadone maintenance patients, little is known about the impact of the frequency of counselor changes on patients' ability to maintain sobriety and involvement with the criminal justice system, across time in treatment.

This study attempted to explore the impact of the number of counselor changes made across six years, and its influence on the sobriety and criminality of 37 methadone maintenance patients at an outpatient methadone treatment facility.

Methods

The 37 participants were active patients from the Bay Area Addiction Research & Treatment programs (B.A.A.R.T.) who remained in treatment between 1997-2003. The study explored the data using a longitudinal retrospective approach and analyzed the variables of interest using Mixed Model Regression analysis. Additionally, Generalized Estimating Equation was used to account for the non-linearity in criminality.

The Predictor variables were:

- Average methadone dose level by year
- Number of counselor changes per year

The Outcome variables were:

- Percentages of drug free urinalysis (UA)
- Criminality (as measured by jail dosing)

Demographics (gender, age and ethnicity) were controlled for in the analyses.

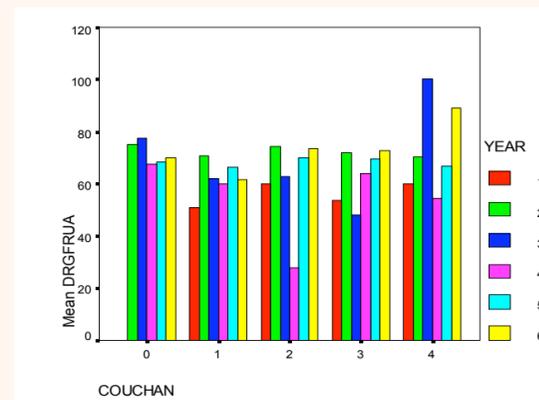
Demographic Variables			
Variables		Frequency	Percentage
Gender	female	15	40.54
	male	22	59.46
Ethnicity	Caucasian	21	56.76
	Other	16	43.24
Age	30-39	3	8.11
	40-49	8	21.62
	50-59	24	64.86
	60-69	2	5.41

Results

- The results show that for every one unit increase of counselor change, the patients' drug free UA decreases by 5.8% ($p=.03$).

Mixed Effects Regression Model Drug Free UA		
Effect	Estimate	P-Value
Dose level	-0.2629	0.1691
Counselor changes	-5.8315	0.0331*
Year	0.3261	0.9227
Dose level X Year	-0.00838	0.8255
Counselor changes X Year	1.0855	0.1304

- Patients who had ≤ 1 counselor change maintained a steady level of drug free UA.
- Patients who had more counselor changes, particularly ≥ 2 counselor changes tended to show greater fluctuations in their ability to maintain sobriety from opiates.



Counselor Change	Number of Patients					
	year 1	year 2	year 3	year 4	year 5	year 6
0	0	17	14	14	10	16
1	12	10	12	15	14	9
2	13	4	6	4	7	8
3	8	4	4	2	3	1
4-6	4	2	1	2	3	3

- The probability of the occurrence of criminality was not predicted by dose level, counselor changes, year, and its interactions. None of the predictors were significant ($p>.05$).

Generalized Estimating Equations Criminality			
Parameter	Estimate	Odds Ratio	P-Value
Dose level	0.0377	1.03840	0.0830
Counselor changes	-0.2214	0.80138	0.3830
Year	0.2742	1.31554	0.5123
Dose level X Year	-0.0046	0.99544	0.3159
Counselor changes X Year	0.0746	1.07740	0.2227

Conclusions

The results suggest that number of counselor changes may play an important role in patients' ability to maintain sobriety from opiates.

In efforts to maintain sobriety and reduce criminality in methadone maintenance patients, it is important to consider consistency in every aspect of their treatment. As we focus on the importance of counselor-patient relationships, we also need to consider the consistency of these relationships, which as the results suggested, may affect the patients' ability to maintain a drug free life.

The limitations of the study includes the small sample size. Future studies should explore the same variables with a larger sample size. Additionally, the measure of criminality was limited to jail dosing. Future studies should attempt to use a more reliable means of assessing criminality. Finally, the types of drugs used and the severity of addiction were not explored in this current study, and should be considered for future studies.

Literature cited

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For further information

If you have any questions or would like information related to this presentation, please contact me at yleyva@alliant.edu.