



Cost-Analysis of an Intensive Outpatient Program for Youth



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Objective

- The purpose of the current study was to examine costs associated with an intensive outpatient program (IOP) for youth

Background

- The Patient Protection and Affordable Care Act (ACA) mandates that healthcare providers deliver effective and financially responsible services (Berwick et al., 2008)
- To remain relevant in the healthcare regime, psychologists must prove that their services have value-added benefit (Berwick et al., 2008)
- IOPs utilize many resources, both direct and indirect (e.g., time lost) costs
- Understanding the relationship between IOP cost and symptom improvement is essential in determining their utility for patients

Hypotheses

- H1: Patients' Global Assessment of Functioning (GAF) scores will improve over treatment
- H2: There will be a dose-effect of treatment; variation in GAF scores will be associated with time and money spent in the IOP

Contact Information

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Results

- Overall, participants' GAF scores increased during the program ($M = 5.09$)
- Participant length of stay ranged from 3 to 227 days ($M = 37.42$)
- Wave analyses revealed that after the mean 37.42 days, for every additional \$1,000 charge (1.4 days of treatment), GAF score decreased non-significantly by .02 points

Table 1: ANOVA

Effect	df	F Value	Sig.
Wave	(1, 42.7)	25.41	<.0001
IOP Charge - Thousand	(1, 42.8)	1.92	.17
IOP Charge Thou*wave	(1, 42.3)	.19	.66

Table 2: Wave Analysis

Effect	Wave	Estimate	SE	df	T-Value	Sig.
Intercept		48.60	.92	43.00	53.00	<.0001
Wave	pos	5.09	1.01	42.70		
IOP Charge - Thousand		.07	.05	43.00	1.45	.15
IOP Charge Thou*wave	pos	-.02	.05	42.30	-.44	.66

- Supplementary analyses demonstrated a medium-sized, statistically significant correlation between first and last GAF score ($r=.44$, $df=44$, $p<.01$), suggesting that changes were due to a treatment effect

Methods

- Archival data from an urban IOP between 2013-2016 was analyzed
- Participants were 45 ethnically diverse youth ages 12 to 17 who were treated in an IOP
- Descriptive statistics were used to test H1
- A two-way repeated measures analysis of variance (ANOVA) and wave analyses applied to change scores were used to test H2

Conclusions

- Cost-analyses revealed a dose-effect of treatment: the mean 37 days was ideal for clinical improvement and cost-efficiency
- Treatment was most effective and cost-effective during the initial 37 days of treatment
- Assessing costs and length of stay can result in more efficient care for patients

References

- Berwick, D. M., Nolan, T.W., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, 27, 759-769. doi:10.1377/hlthaff.27.3.759

