Making the Case for Supported Employment: Lower Use & Costs of Medical Services for Employed Persons with Serious Mental Illness

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Presented at the SAMHSA SEP Grantee Meeting, March 15-16, 2018, Rockville, MD

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Major Research Questions

- Do people with psychiatric disabilities who work have lower medical service ***utilization*** and ***costs*** than those not in the labor force?
- If so, can we make the case for services that promote employment by arguing that they have the potential to ***save money*** for managed care organizations (MCOs) and state Medicaid authorities?

Methods

- N=121 English-speaking participants with serious mental illness were interviewed from May 2016--May 2017.
- Participants were clients at 1 of the SAMHSA IPS initiative sites in Chicago.
- A 30 minute in-person interview assessed service utilization, self-perceived mental & physical health status, employment, & disability status.
- 57% (n=69) were not working; 43% (n=52) were employed, of those working, 71% were receiving IPS services
- Multivariable logistic regression and negative binomial generalized linear models examined differences in service use & estimated costs by employment status

This research was supported by a grant from the U.S. Social Security Administration (SSA) as part of the Disability Research Consortium (DRC). The findings and conclusions are solely those of the author[s] and do not represent the views of SSA, any agency of the Federal Government, NBER Disability Research Center or Mathematica's Center for Studying Disability Policy (CSDP).

Participant Characteristics

	Total Sample N=121	Employed n=52	Not working n=69
Female	(41) 33.9%	(17) 32.6%	(24) 34.7%
Black/African American	(71) 58.7%	(32) 61.5%	(39) 56.5%
White	(33) 27.3%	(16) 30.8%	(17) 24.6%
Asian	(5) 4.1%	(0) --	(5) 7.2%
American Indian	(2) 1.7%	(1) 1.9%	(1) 1.4%
Mixed Race	(7) 5.8%	(3) 5.8%	(4) 5.8%
Hispanic/Latino Ethnicity	(15) 12.4%	(4) 7.7%	(11) 15.9%
Medicaid/Medicare Coverage	(98) 81.0%	(43) 82.6%	(55) 79.7%
Major Depression	(35) 28.9%	(12) 23.1%	(23) 33.3%
Bipolar Disorder	(26) 21.5%	(12) 23.1%	(14) 20.3%
Schizophrenia/Schizoaffective Disorder	(54) 44.6%	(25) 48.1%	(29) 42.0%
Anxiety Disorder	(6) 5.0%	(3) 5.8%	(3) 4.3%
	Mean (std dev)	**Mean (std dev)**	**Mean (std dev)**
Poor Physical Health (self-reported, higher=worse)	3.2 (1.2)	3.0 (1.1)	3.4 (1.2)*
Age, years	47.7 (9.8)	47.1 (9.9)	48.1 (9.8)
Monthly Income including disability cash benefits	$1,203 (935)	$1,802 (1010)	$752 (564)*

*p <. 05

Use of medical care was less likely among employed people

	Employed	Not Employed	Total	Odds Ratio (95% Confidence Interval)
Any Medical Care	19.2% (10)	44.9% (31)	33.9% (41)	0.29 (.13-.67)*
Outpatient Care	15.4% (8)	29.0% (20)	23.1% (28)	0.45 (.18-1.11)+
Inpatient/ Emergency Care	11.5% (6)	24.6% (17)	19.0% (23)	0.40 (.14-1.09)+

*p < .05, + p < .10

Medical care use was lower, even controlling for factors that affect health care use Multivariable Logistic Regression adjusting for Participant Characteristics

	Any Medical Care
	Odds Ratio (95% Confidence Interval)
Employed (vs not working)	0.31 (0.13, 0.72)**
Poor Physical Health (higher score = worse health)	1.08 (0.77-1.50)
Age, in years	1.02 (0.97-1.06)
Female (vs male)	1.16 (0.50-2.68)
Black (vs all other racial groups)	0.75 (0.34-1.68)

**p<.01

Estimated costs[1] of medical care significantly lower among employed vs. not working Negative Binomial Generalized Linear Models[2]

	Total (N=121) n (%)	Employed (N=52) n (%)	Not working (N=69) n (%)
Average outpatient medical costs	$775	$515	$971**
Average inpatient medical costs	$1,615	$939	$2,124***
Average outpatient + inpatient costs	$2,390	$1,455	$3,095***

[1]Costs are estimated from data in the most recent CMS MMLEADS Public Use File, and based on average Medicaid fee-for-service costs for Illinois in 2011 among Medicaid adult enrollees with physical and/or mental health disabilities. Emergency Department costs were not available.

[2] Analysis controls for age, sex, race, & health status.

**p<.01, ***p<.001

Answers to Major Questions

- Did people with psychiatric disabilities who worked have lower medical service ***utilization*** than those not in the labor force? – YES, although further analysis & better data are needed to understand this more fully
- Did those who worked have lower medical services ***costs*** than those not in the labor force? – YES, although analysis of actual (vs. imputed) costs are needed to verify and understand this more fully
- Can we argue that helping people work saves money for managed care organizations (MCOs) and state Medicaid authorities? – our results support this conclusion but it is ultimately UNKNOWABLE without an experimental study

What business case can we make?

- We have evidence that people with psychiatric disabilities who are employed are less likely to use medical services than those not working. This is true regardless of their reported health.
- Also, that employed people with psychiatric disabilities have lower estimated medical costs than those not working, also true regardless of self-reported health.
- Therefore, providing services that promote employment & sustained labor force participation may be a good investment for payors seeking to control medical service use & costs.
- These results are shared with state & MCO policy makers as part of making the business case for including IPS in the state's essential behavioral health services package.

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