impacTEEN

A Policy Research Partnership to Reduce Youth Substance Use

Supported by
The Robert Wood Johnson Foundation

The Local Implementation of Drug Policy and Access to Treatment Services

Yvonne Terry-McElrath*
Duane C. McBride**
Mark Boward**
Erin Ruel***

Presented at the Health Services Research Conference
Key Largo, Florida
November 1, 2002

* **Institute for Social Research, University of Michigan**
** **Institute for the Prevention of Addiction, Andrews University**
*** **Health Research & Policy Centers, University of Illinois, Chicago**

Larger Research Focus: Local Drug Policy and Youth Drug-Using Behavior and Perceptions

- 173 communities in catchment areas surrounding public schools in a nationally representative sample of students in 8th, 10th and 12th grade in the coterminous U.S. in 2000 (Monitoring the Future study, NIDA)
  a. Respondents: Prosecutors handling the majority of youth cases (N=135; 78% response rate)
     - Typical processing of first-time juvenile offenders charged with possession or sales of marijuana, cocaine, crack
     - Options included diversion to treatment, drug court, juvenile court, adult court

  b. Other key informants focusing on extent of drug problem, treatment referral patterns and barriers to treatment.

- School administrator survey data on availability of school based treatment, police called, and referral to community.

- MTF data on youth drug use, perceptions and attitudes about drugs

Findings to this Point*

- Most types of drug treatment services are available in the communities surrounding MTF schools.
- Community key informants identify the juvenile justice system as a major treatment referral source, followed by schools.
- The majority-56.4%-of school administrators report referring first-time student drug offenders to treatment, about a quarter report having in-school drug counselors, and 74.7% report calling the police.
- Just over a third of prosecutors reported having a TASC program for juveniles or a juvenile drug court available to them.

5. Juvenile court outcomes vary in severity by type of drug – marijuana possession typically receives a less severe outcome than cocaine possession. Cocaine processing shows most variation across communities.

* Data presented at American Society of Criminology, American Sociological Association, Regional CSAT Conference & in Corrections Today, August 2002.

Presentation Conceptual Framework:

- Health Service Research Model suggested by Aday and her colleagues (1993) specifies examining the structure, processes and outcomes of the health care system.
- Outcomes include effectiveness, efficiency and equity of access to services.

Specific Research Questions Addressed:

- Examining access to treatment services for drug-using juvenile offenders:

  1. What is the relationship between drug charge and treatment access?

  2. What is the impact of community socio-demographic characteristics on the relationship?

The Role of the Criminal Justice System and Treatment Access

- ADAM data show 62.6% of arrestees sampled had an illicit drug in urine; 40% classified as heavy users. Only 11.5% had been in treatment in past year (ADAM Preliminary Report January-September 2001).
- Research data suggest declines in the availability of jail/prison treatment services; most available services are self-help (Blenko, 1998; Wilson, 2000; Terry-McElrath et al., 2002; McBride et al., 2002).
- Marijuana is the primary substance found when testing juvenile and young adult arrestees (ADAM Preliminary Report). The percent of marijuana users among young arrestees has increased (Golub & Johnson, 2001).
- The criminal justice system is the primary source of treatment referral (36.9%) for all TEDS clients and the majority source (57%) for marijuana referrals (SAMHSA TEDS Report, 2001).
- Marijuana is the primary drug of the majority TEDS clients under 18 (SAMHSA TEDS Report, 2001).

Methods Used in Analysis

1. Independent variables: community income, ethnicity, and age distribution data obtained from year 2000 GeoLytics estimates. Population density obtained from National Center for Education Statistics. Dummy variables for identifying drug charge for multi-level analyses
2. Dependent variables: a) Diversion availability and frequency of use; b) Non-juvenile justice processing: drug court vs. criminal court; c) Adjudication outcomes: probation w/ treatment vs. placement
3. Data moved from wide to long format. Each substance-specific outcome treated as separate case in data, clustered within respondents (or communities)

- Completed bivariate analyses specifying Pearson's chi square and Fisher's Exact in SAS v.8. Multivariate analyses conducted in STATA: logistic and ologit models, clustering by community, and requesting contrast models.

Community Demographics

Age Distribution	
> Nat'l 12-17	59.3%
> Nat'l 18-24	29.6%

Ethnicity	
> Nat'l African-American	34.1%
> Nat'l Asian	19.3%
> Nat'l Caucasian	64.4%
> Nat'l Hispanic	25.9%

Median Household Income	
> Nat'l mean	40.8%

Population Density	
Urban/suburban	63.0%
Town/rural	37.0%

Region	
West	20.0%
Midwest	27.4%
South	33.3%
Northeast	19.3%

Diversion to Treatment: Availability

Availability of Diversion by Substance Offense Charge						
	Charge					
	Marijuana		Cocaine		Crack	
	Possession	Sales	Possession	Sales	Possession	Sales
	% resp	% resp	% resp	% resp	% resp	% resp
	(N=98)	(N=94)	(N=97)	(N=94)	(N=97)	(N=94)
Any diversion	93.9	75.5	88.7	70.2	89.7	68.1
	(N=86)	(N=86)	(N=86)	(N=86)	(N=86)	(N=86)
Diversion w/ expungement	70.9	60.5	73.3	55.8	75.6	54.7

Diversion to Treatment: Availability, cont.

(Logistic Models)

	Any diversion				With expungement			
	Model 1		Model 2		Model 1		Model 2	
Indpendent Variables	OR	p	OR	p	OR	p	OR	p
Drug offense								
Marijuana possession	ref		ref		ref			
Marijuana sales	0.20	***	0.19	***	0.63		0.69	
Cocaine possession	0.51		0.50		1.12		1.13	
Cocaine sales	0.15	***	0.14	****	0.52		0.49	
Crack possession	0.57		0.55		1.27		1.29	
Crack sales	0.14	***	0.13	***	0.49	*	0.46	*
White population			1.40				0.76	
Population aged 12-17			2.01				1.55	
Population aged 18-24			0.76				0.62	
Median household income			1.18				0.83	
West			1.05				3.85	**
Midwest			0.31	*			1.22	
Northeast			1.15				4.06	**
Urban communities			1.55				1.51	

*p<.05 **p<.01 ***p<.001

Diversion to Treatment: Frequency of Use

Frequency of Diversion Use by Substance Offense Charge						
	Charge					
	Marijuana		Cocaine		Crack	
	Possession	Sales	Possession	Sales	Possession	Sales
	% resp	% resp	% resp	% resp	% resp	% resp
Diversion - any	(N=92)	(N=93)	(N=89)	(N=93)	(N=91)	(N=93)
Never	12.0	50.5	36.0	68.8	37.4	71.0
Rarely/sometimes	28.3	40.9	42.7	28.0	42.9	23.7
Usually/always	59.8	8.6	21.4	3.2	19.8	5.4
Diversion - w/ expungement	(N=69)	(N=61)	(N=69)	(N=57)	(N=72)	(N=56)
Never	10.1	42.6	34.8	66.7	36.1	67.9
Rarely/sometimes	21.7	49.2	43.5	28.1	43.1	25.0
Usually/always	68.1	8.2	21.7	5.3	20.8	7.1

Diversion to Treatment: Frequency of Use, cont.

(Cumulative Logit Models)

	Any diversion				With expungement			
	Model 1		Model 2		Model 1		Model 2	
Indpendent Variables	OR	p	OR	p	OR	p	OR	p
Drug offense								
Marijuana possession	ref		ref		ref			
Marijuana sales	0.09	***	0.08	***	0.08	***	0.07	***
Cocaine possession	0.18	***	0.17	***	0.13	***	0.12	***
Cocaine sales	0.04	***	0.03	***	0.03	***	0.03	***
Crack possession	0.17	***	0.16	***	0.12	***	0.11	***
Crack sales	0.04	***	0.03	***	0.03	***	0.03	***
White population			0.93				0.67	
Population aged 12-17			0.77				0.46	
Population aged 18-24			0.52				0.34	*
Median household income			1.50				1.39	
West			0.83				1.31	
Midwest			0.55				1.17	
Northeast			0.28	**			0.32	*
Urban communities			1.53				1.64	
Ns for mutivariates: any diversion=574; w / expungement=516.								

*p<.05 ** p<.01 ***p<.001

Location of Processing

Frequency of Processing Location Use by Substance Offense Charge						
	Charge					
	Marijuana		Cocaine		Crack	
	Possession	Sales	Possession	Sales	Possession	Sales
	% resp	% resp	% resp	% resp	% resp	% resp
Drug Court	(N=32)	(N=30)	(N=30)	(N=31)	(N=30)	(N=29)
Never	6.3	16.7	6.7	12.9	10.0	17.2
Rarely/sometimes	65.6	70.0	53.3	74.2	70.0	65.5
Usually/always	28.1	13.3	40.0	12.9	20.0	17.2
Criminal Court	(N=88)	(N=79)	(N=81)	(N=78)	(N=76)	(N=73)
Never	61.4	38.0	34.6	24.4	30.3	26.0
Rarely/sometimes	29.6	44.3	50.6	53.9	54.0	54.8
Usually/always	9.1	17.7	14.8	21.8	15.8	19.2

Location of Processing, cont.

(Cumulative Logit Models)

	Drug court				Criminal court			
	Model 1		Model 2		Model 1		Model 2	
Indpendent Variables	OR	p	OR	p	OR	p	OR	p
Drug offense								
Marijuana possession	ref		ref		ref			
Marijuana sales	0.38		0.35		2.68	***	3.21	***
Cocaine possession	1.56		1.81		2.78	***	3.34	***
Cocaine sales	0.44	*	0.38		4.45	***	5.67	***
Crack possession	0.64		0.51		3.23	***	3.85	***
Crack sales	0.44		0.38		3.97	***	5.15	***
White population			5.04				1.79	
Population aged 12-17			1.68				0.72	
Population aged 18-24			0.48				0.68	
Median household income			0.14	**			0.74	
West			0.16				0.50	
Midwest			0.18				0.58	
Northeast			0.08				0.12	**
Urban communities			8.95	**			0.89	
Model Ns: drug court=182; criminal court=475.								

*p<.05 ** p<.01 ***p<.001

Adjudication Outcomes

Frequency of Adjucation Outcomes by Substance Offense Charge						
	Charge					
	Marijuana		Cocaine		Crack	
	Possession	Sales	Possession	Sales	Possession	Sales
	% resp	% resp	% resp	% resp	% resp	% resp
Probation w/ treatment	(N=88)	(N=79)	(N=81)	(N=79)	(N=77)	(N=76)
Never	6.8	0.0	1.2	1.3	1.3	4.0
Rarely/sometimes	35.2	39.2	34.6	45.6	40.3	38.2
Usually/always	58.0	60.8	64.2	53.2	58.4	57.9
Placement	(N=87)	(N=79)	(N=81)	(N=79)	(N=77)	(N=76)
Never	18.4	5.1	3.7	2.5	3.9	6.6
Rarely/sometimes	71.3	63.3	65.4	59.5	64.9	61.8
Usually/always	10.3	31.7	30.9	38.0	31.2	31.6

Adjudication Outcomes, cont.

(Logistic Model for Probation w/ Tx; Cumulative Logit Model for Placement)

	Probation with treatment				Placement			
	Model 1		Model 2		Model 1		Model 2	
Indpendent Variables	OR	p	OR	p	OR	p	OR	p
Drug offense								
Marijuana possession	ref		ref		ref			
Marijuana sales	0.94		0.91		4.32	***	4.67	***
Cocaine possession	1.13		1.20		4.35	***	4.75	***
Cocaine sales	0.71		0.68		5.93	***	6.62	***
Crack possession	0.88		0.91		4.38	***	5.09	***
Crack sales	0.92		0.92		4.12	***	4.86	***
White population			2.24				3.32	**
Population aged 12-17			3.09	**			1.78	
Population aged 18-24			4.03	***			0.88	
Median household income			1.49				0.55	
West			0.30	*			0.64	
Midwest			0.64				0.47	
Northeast			0.44				1.05	
Urban communities			0.73				1.02	
Model Ns: probation w / tx=468; placement=479.								

*p<.05 ** p<.01 ***p<.001

Summary

- When looking at the juvenile justice system, treatment access possibilities include: a) diversion to treatment, b) referral to drug court, and c) adjudication in juvenile court to probation with treatment
- Diversion access varies based on definition of program type, drug charge, and by region
- Odds of diversion decrease for sales compared to possession and for cocaine/crack compared to marijuana
- Frequency of referral to criminal court highly affected by drug charge – cocaine/crack sales significantly more likely to be referred to criminal court than marijuana possession (Criminal court may or may not include treatment components)
- Frequency of using probation w/ tx as adjudication outcome shows no drug charge variance, but significant population and regional differences

Summary, cont.

- Odds of receiving placement as adjudication outcome strongly related to drug charge and community ethnicity

- When examining contrast analyses, no significant differences in processing between cocaine and crack were observed, excepting drug court frequency of use

Limitations:

- Data represent average treatment effects and not individual records
- Cross-sectional sample (one year of data) and low N
- Sample based on nationally representative student samples; cannot generalize to community characteristics
- Utilized public school communities only (80% of total sample)
- Currently using models assuming proportional odds

Implications

- The juvenile justice system provides a significant link between substance-using juveniles and treatment access
- Treatment access for juvenile drug sales offenses may be more limited than for possession
- Access to treatment for juveniles is most likely to occur for those charged with marijuana possession (this is consistent with TEDS referral data which shows that the majority of referrals for marijuana are from the CJS)
- Because the prosecutors surveyed were as likely to use drug courts for all drug charges, expansion of the drug court movement may help increase equitable access

Future Directions

1. Continuation of analyses using a stages of change model in MIXOR.

- Examination of relationship between referral to treatment vs. harsh penalties and perceptions about:
  a. drug use risk
  b. availability
  c. peer disapproval

3. Examination of the relationship between referral to treatment vs. processing severity scales and youth drug use patterns

Supported by
The Robert Wood Johnson Foundation

Bridging the Gap:

Practice for Healthy Youth Behavior

impacTEEN
A Policy Research Partnership to Reduce Youth Substance Use

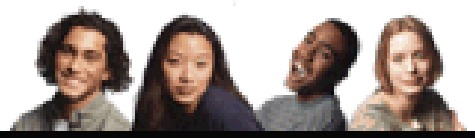
Frank Chaloupka
University of Illinois at Chicago
Health Research and Policy Centers

YES! Youth, Education, & Society

Lloyd Johnston
University of Michigan
Institute for Social Research

impacTEEN

A Policy Research Partnership to Reduce Youth Substance Use



Supported by
The Robert Wood Johnson Foundation

Illicit Drug Research Team

Duane McBride, Principal Investigator–Andrews University

Rosalie Liccardo Pacula, Co-Principal Investigator–The RAND Corporation

Curt VanderWaal, Project Director–Andrews University

Jamie Chriqui, Legislative Data Base Coordinator–The MayaTech Corporation

Yvonne Terry-McElrath, Analyst–University of Michigan

Lisa Powell, Community Liaison—University of Illinois at Chicago

Other Partners

Frank J. Chaloupka and others–University of Illinois at Chicago

Lloyd Johnston, Patrick O'Malley, and others–University of Michigan

Richard Clayton, Michael Grossman and several other consultants

THE ROBERT WOOD JOHNSON FOUNDATION UIC

ImpacTeen is part of Bridging the Gap: Research Informing Practice for Healthy Youth Behavior, supported by The Robert Wood Johnson Foundation and administered by the University of Illinois at Chicago.