



# Other-oriented Regard and Adolescent Addiction

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## INTRODUCTION

### BACKGROUND

- Dramatic increase in adolescent SUDs in the 21<sup>st</sup> century
  - Substantial decline in youth volunteerism
  - AOD use inhibits brain development & scholastic achievement (1)
  - AOD use associated with increase in STIs & criminal activity, shortened life-span, and medical co-morbidities (2, 3, 4, 5)
  - 12-Step Theory: egocentric-thinking a root cause of addiction
  - Research is limited to support this theory among youth
- STUDY OBJECTIVE**
- Determine if poor other-oriented regard is a characteristic of addiction in a large sample of minors

### HYPOTHESIS

- Substance dependent youth will show lower other-oriented regard than their normative peers

## METHODS

### SUBJECTS

- 595 youth (195 addicted, 195 some-users, 195 never-users)
- Matched by age, gender, minority status, and zip code

### MEASURES

- 2009 YRBS
  - Background: gender, minority, age, grade, parental education, household structure, zip code
  - Substance use history
  - Other-oriented regard: volunteerism, DUI, unprotected sex

### PROCEDURES

- Approved by Case Medical Center IRB, Certificate of Confidentiality obtained
- AOD dependent subjects compensated \$25

### STATISTICAL ANALYSIS

- Binary logit model stratified by pair assignment
- Probability of low volunteerism, DUI, & unprotected sex

## REFERENCES

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**Table 1. Background and Physical Health Characteristics of Study Sample**

Characteristic	Total N=585 (100%)	No Use N=195 (33%)	Some Use N=195 (33%)	Addiction N=195 (33%)		
Background	Age	16.0 (1.2)	15.8 (1.3)	16.0 (1.3)	16.2 (1.1)	
	Gender	279 (48%)	93 (48%)	93 (48%)	93 (48%)	
	Race	Minority (%)	177 (30%)	59 (30%)	59 (30%)	59 (30%)
	Ethnicity	Hispanic (%)	51 (9%)	18 (9%)	15 (8%)	15 (8%)
	Grade	9 <sup>th</sup> -10 <sup>th</sup> (%)	357 (61%)	119 (61%)	119 (61%)	119 (61%)
		11 <sup>th</sup> -12 <sup>th</sup> (%)	228 (39%)	76 (39%)	76 (39%)	76 (39%)
	Household structure	Single parent (%)	277 (47%)	80 (41%)	101 (52%)	98 (50%)
	Parental education	Some HS (%)	106 (18%)	32 (16%)	45 (23%)	29 (15%)
		HS diploma (%)	260 (44%)	77 (39%)	70 (36%)	113 (58%)
		BA+ (%)	219 (37%)	86 (44%)	80 (41%)	53 (27%)
Physical Health	Body mass index	Underweight (%)	18 (3%)	4 (2%)	4 (2%)	10 (5%)
		Normal (%)	434 (74%)	136 (70%)	147 (76%)	151 (77%)
		Overweight (%)	79 (14%)	32 (16%)	23 (12%)	24 (12%)
		Obese (%)	54 (9%)	23 (12%)	21 (11%)	10 (5%)
	Health quality of life	Very Good/Good (%)	393 (67%)	133 (68%)	127 (65%)	133 (68%)
		Fair (%)	144 (25%)	41 (21%)	52 (27%)	51 (26%)
		Poor (%)	48 (8%)	21 (11%)	16 (8%)	11 (6%)
	History of asthma	Yes (%)	102 (17%)	37 (19%)	35 (18%)	30 (15%)

Notes: \*p<.10; Body mass index categories based on age and gender growth charts;

**Table 2. Alcohol and Drug Consumption of the Study Sample**

Time Frame	Alcohol/Drug	Frequency	No Use N=195 (33%)	Some Use N=195 (33%)	Addiction N=195 (33%)
Past Month	1+ drink	0 days	0 (0%)	108 (55%)	103 (53%)
		1-9 days	0 (0%)	75 (39%)	80 (41%)
		10+ days	0 (0%)	12 (6%)	12 (6%)
	Binge drinking***	0 days	0 (0%)	162 (83%)	115 (59%)
		1-9 days	0 (0%)	33 (17%)	69 (35%)
		10+ days	0 (0%)	0 (0%)	11 (6%)
	Marijuana***	0 times	0 (0%)	151 (77%)	75 (38%)
		1-9 times	0 (0%)	28 (14%)	37 (19%)
		10+ times	0 (0%)	16 (9%)	83 (43%)
	Lifetime	1+ drink***	0 days	0 (0%)	0 (0%)
1-19 days			0 (0%)	110 (56%)	36 (18%)
20+ days			0 (0%)	49 (25%)	159 (82%)
Marijuana***		0 times	0 (0%)	107 (55%)	0 (0%)
		1-19 times	0 (0%)	60 (29%)	8 (4%)
		20+ times	0 (0%)	28 (14%)	187 (96%)
Cocaine***		0 times	0 (0%)	175 (90%)	112 (57%)
		1-19 times	0 (0%)	20 (11%)	15 (8%)
		20+ times	0 (0%)	0 (0%)	68 (35%)
Inhalants***		0 times	0 (0%)	171 (88%)	135 (69%)
	1-19 times	0 (0%)	13 (7%)	34 (17%)	
	20+ times	0 (0%)	11 (6%)	26 (13%)	
Heroin***	0 times	0 (0%)	182 (93%)	89 (46%)	
	1-19 times	0 (0%)	2 (1%)	33 (17%)	
	20+ times	0 (0%)	11 (6%)	73 (37%)	
Methamphetamine***	0 times	0 (0%)	177 (91%)	111 (57%)	
	1-19 times	0 (0%)	7 (4%)	25 (13%)	
	20+ times	0 (0%)	11 (6%)	59 (30%)	
Ecstasy***	0 times	0 (0%)	178 (91%)	92 (47%)	
	1-19 times	0 (0%)	17 (9%)	32 (16%)	
	20+ times	0 (0%)	0 (0%)	71 (36%)	
Non-prescribed medication***	0 times	0 (0%)	156 (80%)	99 (51%)	
	1-19 times	0 (0%)	28 (14%)	31 (16%)	
	20+ times	0 (0%)	11 (6%)	65 (33%)	

Notes: binge drinking=5 or more drinks within a couple of hours; \*\*\*p<.0001;

**Table 3. Likelihood of Low Other-Oriented Regard**

	Total N=585 (100%)	No use (A) N=195 (33%)	Some use (B) N=195 (33%)	Addiction (C) N=195 (33%)	A vs. B RR	A vs. C RR	B vs. C RR
Low Other-Oriented Regard	585 (100%)	195 (33%)	195 (33%)	195 (33%)			
Low volunteerism (<5 hrs)	454 (78%)	151 (77%)	140 (72%)	163 (84%)	1.05	1.14**	1.06
Males	N=297	214 (72%)	70 (60%)	80 (86%)	1.06	1.15**	1.12*
Females	N=306	240 (78%)	81 (75%)	83 (81%)	1.05	1.08	1.02
Driving under the influence	136 (23%)	15 (8%)	111 (57%)	--	--	--	1.64***
Grade (9 <sup>th</sup> -10 <sup>th</sup> )	N=357	73 (20%)	7 (6%)	66 (55%)	--	--	1.64***
Grade (11 <sup>th</sup> -12 <sup>th</sup> )	N=228	53 (23%)	8 (11%)	45 (59%)	--	--	1.63***
Unprotected sex <sup>†</sup>	N=436	239 (55%)	34 (38%)	85 (56%)	1.19*	1.26**	1.06
Sexually Transmitted Disease (STD)	74 (13%)	15 (8%)	30 (15%)	29 (15%)	1.08*	1.09*	1.01
Unprotected sex when infected with STD	46 (8%)	2 (13%)	18 (60%)	26 (90%)	1.59**	2.14**	1.33*

Notes: \*p<.05, \*\*p<.01, \*\*\*p<.0001; <sup>†</sup>149 virgins not included;

## RESULTS

### BACKGROUND & PHYSICAL HEALTH (TABLE 1)

- No significant differences
  - Exception: addicted youth had 2x the rate of STD
- AOD ABUSE HISTORY (TABLE 2)
  - Alcohol, marijuana, & prescription meds most common
  - More heavy use of all substances in the addiction sample
- OTHER-ORIENTED REGARD VARIABLES (TABLE 3)
  - Low volunteerism seen in addicted boys but not girls
  - Boys with addiction report lower volunteerism than boys with some (RR=1.19, p<.01) & no AOD (RR=1.12, p<.05)
  - Higher incident of DUI in addiction sample
  - Unprotected sex with STD 2x as likely in addicted youth
- AOD ABUSE & OTHER-ORIENTED REGARD (TABLES 2 & 3)
  - Significant dose-response relationship between addiction severity and low volunteerism, DUI, & unprotected sex

## DISCUSSION

- First study to explore the relationship between AOD & other-oriented behaviors in adolescents
- Volunteerism 5+ hours per month shows reduction in addiction; supported by prior research (6)
- Heightened awareness of social acceptability & ideals may explain lack of support for hypothesis in girls
- AOD abuse/addiction not an issue of morality or psychopathology
  - Neuroimaging shows blunted responsivity (7) and thus inadequate sensitivity cues towards others
  - Addicts struggle socially (8), need external validation (9), & are hypersensitive to criticism (10)
- STRENGTHS/LIMITATIONS
  - Matched-pair design
  - Representation of gender (52% F) & race (30% minority)
  - Inconclusive direction of causation (single time point)
  - May not generalize to adults or non-western societies
  - Possible bias of youth self-report
- CLINICAL IMPLICATIONS
  - Findings suggest connection between addiction and poor awareness of the impact of behaviors on others
  - Addicted youth will likely benefit Al-Anon meetings
    - Foster increased awareness
    - Curb self-centered thinking

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