Adolescent Characteristics Associated with Motivation to Change (MTC) at Treatment Intake

Delos Reyes CM, Pagano ME, Ferrer M, Alatise A, Brager D, Nwokeji N

www.helpingotherslivesober.org

INTRODUCTION

- Motivational Interviewing dominant treatment modality, associated with better outcomes [1]
- Characteristics associated with ↑MTC
  - Adult studies: female, ↓depression, ↑A/D severity, ↑A/D consequences [2,3,4]
  - Handful of youth studies: ↓family discord, sexual abuse, ↑A/D consequences, mental problems [5,6]
- Study Aim: what characteristics are associated with ↑MTC among youths with addiction?

METHODS

- 195 youths (52% female, aged 14-18)
- 100% marijuana use d/o, 61% alcohol use d/o
- 85% court-referred: residential treatment in Ohio
- Data collected at intake
- Measures:
  - MTC (URICA)
  - Background variables
  - A/D severity variables (YRBS)
  - A/D-related problems (ASI)
- Statistical analysis:
  - MTC groups compared using Fisher's exact test (binary), Kruskal-Wallis χ2 test (continuous)

REFERENCES

1. Carroll KM et al, (2006): Motivational interviewing to improve treatment engagement and outcome in individuals seeking treatment for substance abuse: A multisite effectiveness study. Drug Alcohol Depend. 81 (3): 301-312
2. DiClemente et al. (2009). Predicting Treatment Seekers Readiness to Change their Drinking Behavior in the COMBINE Study. Alcohol Clin Exp Res., 33(5): 879-892
3. Hser, Y. (2007), Predicting Long-Term stable Recovery from Heroin Addiction. Journal of Addictive Diseases, 26(1): 51-60.
4. Adamson et al. (2009), Patient Predictors of Alcohol Treatment Outcome: A systematic Review. Journal of Subst Abuse Treatment, 36 (1) 75-86.
5. Collins, J & Slesnick N. (2011), Factors Associated with Motivation to Change HIV Risk and Substance Use Behaviors among Homeless Youth, J Soc Work Pract Addict. 11(2): 163-180
6. Barnett et al. (2002), Predictors of motivation to change after medical treatment for drinking-related events in adolescents, Psychol Addict Behav.16 (2): 106-12.

TABLE 1: BACKGROUND VARIABLES AND MTC

			Motivation to change		
		Total	P	C	A
Background characteristic		195 (100%)	38 (19%)	96 (49%)	61 (31%)
gender	female	102 (52%)	19 (50%)	43 (45%)	40 (66%)*
race	minority	62 (32%)	12 (32%)	29 (30%)	21 (34%)
ethnicity	hispanic	15 (8%)	4 (11%)	5 (5%)	6 (10%)
grade	9-10	119 (61%)	25 (66%)	53 (55%)	41 (67%)
age (years)	M, SD	16.21 (1.10)	16.01 (1.11)	16.30 (1.02)	16.21 (1.11)
parental marital status	married	97 (50%)	23 (61%)	46 (48%)	28 (46%)
parental education	BA+	53 (27%)	10 (26%)	30 (28%)	13 (21%)
residence	rural/small town	103 (53%)	17 (45%)	51 (53%)	35 (57%)
trauma history	trauma experiences	1.72 (1.47)	1.68 (1.54)	1.55 (1.52)	2.00 (1.30)
	sexually abused	45 (23%)	15 (39%)*	14 (15%)	16 (26%)
belief orientation	atheist/agnostic	51 (26%)	16 (42%)**	27 (28%)	12 (13%)

Notes: *p<.05 P=precontemplative, C=contemplative, A=action;

TABLE 2: A/D SEVERITY AND MTC

			Motivation to change		
		Total	P	C	A
A/D severity		*195 (100%)*	*38 (19%)*	*96 (49%)*	*61 (31%)*
Past 30 days	A/D cravings	irresistibility	20.56 (6.29)	20.01 (6.08)	20.06 (6.22)	21.67 (5.63)
		interference	13.19 (6.03)	11.99 (6.56)	13.09 (6.11)	14.09 (5.48)
Past 30 days	%days of use	hallucinogens	0.01 (0.04)	0.01 (0.03)	0.01 (0.00)	0.01 (0.04)
	%days of use	inhalants	0.05 (0.16)	0.05 (0.16)	0.04 (0.00)	0.05 (0.17)
	%days of use	sedatives	0.01 (0.08)	0.03 (0.13)	0.01 (0.01)	0.01 (0.03)
	%days of use	amphetamines	0.01 (0.07)	0.01 (0.04)	0.02 (0.00	0.01 (0.02)
	%days of use	cocaine	0.01 (0.05)	0.02 (0.04)	0.01 (0.00)	0.01 (0.06)
	%days of use	opiates	0.01 (0.03)	0.01 (0.02)	0.01 (0.03)	0.01 (0.04)
	%days of use	marijuana	0.34 (0.38)	0.42 (0.38)	0.34 (0.37)	0.31 (0.41)
	%days of use	alcohol	0.10 (0.16)	0.10 (0.16)	0.08 (0.12)	0.10 (0.19)
	%days of use	nicotine	0.65 (0.29)	0.67 (0.28)	0.65 (0.28)	0.63 (0.31)
Lifetime	20+ times	hallucinogens	71 (36%)	11 (29%)	35 (36%)	25 (41%)
	20+ times	inhalants	26 (13%)	2 (5%)	12 (13%)	12 (20%)
	20+ times	PDM	65 (33%)	11 (29%)	30 (31%)	24 (39%)
	20+ times	cocaine	68 (35%)	10 (26%)	34 (35%)	24 (39%)
	20+ times	ectasy	71 (36%)	11 (29%)	35 (36%)	25 (41%)
	20+ times	meth	59 (30%)	9 (24%)	29 (30%)	21 (34%)
	20+ times	heroin	73 (37%)	11 (29%)	36 (37%)	26 (43%)
	20+ times	marijuana	187 (96%)	38 (100%)	92 (96%)	57 (93%)
	20+ times	alcohol	159 (82%)	30 (79%)	76 (79%)	53 (87%)
Lifetime	years of use		1.38 (0.33)	1.37 (0.27)	1.39 (0.31)	1.38 (0.30)
	prior treatment		17 (9%)	3 (8%)	10 (10%)	4 (7%)

Notes: *p<.05 AOD=alcohol and other drugs; P=precontemplative, C=contemplative, A=action; DH=detention hall;

TABLE 3. A/D-RELATED PROBLEMS AND MTC

			MTC Category		
		Total	P	C	A
Domain	A/D-related problem	195 (100%)	38 (19%)	96 (49%)	61 (31%)
Legal	DUI history	5 (3%)	1 (3%)	0 (0%)	4 (7%)*
	Jail/DH history	128 (66%)	23 (61%)	57 (59%)	48 (79%)*
	Probation history	163 (84%)	30 (79%)	80 (83%)	53 (87%)
	Property crimes	2.15 (1.35)	2.39 (1.39)	2.04 (1.29)	2.16 (1.43)
	Violent crimes	1.75 (1.61)	1.95 (1.86)	1.68 (1.59)	1.74 (1.49)
Home	follows rules at home	38 (19%)	2 (5%)	13 (14%)	23 (38%)****
	participates in family activities	74 (38%)	8 (21%)	27 (28%)	39 (64%)****
School/Work	lost interest in school/work	164 (84%)	36 (79%)	76 (79%)	58 (95%)**
	missed school from A/D	103 (53%)	19 (50%)	46 (48%)	38 (62%)
	dropped out of school from A/D	55 (28%)	8 (21%)	32 (33%)	15 (24%)
	lost job from A/D	103 (53%)	19 (50%)	46 (48%)	38 (62%)
	no volunteering	43 (48%)	25 (66%)*	39 (41%)	29 (48%)
Health	poor global health	11 (6%)	2 (5%)	6 (6%)	3 (5%)
	1+ somatic problems	22 (18%)	9 (24%)	11 (11%)	12 (20%)
	use A/D for somatic problems	76 (39%)	13 (34%)	36 (38%)	27 (44%)
	use A/D for sleep problems	85 (44%)	9 (24%)	48 (50%)	28 (46%)**
	less physically active	139 (71%)	13 (56%)	70 (69%)	56 (79%)*
Mental Health	attention deficit	6.49 (3.45)	6.32 (3.39)	6.52 (3.49)	6.54 (3.47)
	impulsivity	4.89 (2.77)	5.08 (2.76)	4.57 (2.88)	5.26 (2.59)
	angry-irritable	3.10 (1.97)	4.00 (2.05)	3.31 (1.89)	2.21 (1.70)***
	depressed-anxious	3.79 (3.00)	3.21 (3.05)	3.50 (3.01)	4.62 (2.82)*
	suicide-ideation	0.49 (0.73)	0.34 (0.67)	0.40 (0.61)	0.72 (0.88)**
	humility	27.89 (11.16)	24.58 (16.54)	28.03 (10.68)	29.81 (6.53)*

Notes: *p<.05 AOD=alcohol and other drugs; P=precontemplative, C=contemplative, A=action; DH=detention hall;

RESULTS

Table 1. Background variables related to ↑MTC
- Females, ↑ religiosity/spirituality (R/S)
- No sexual abuse

Table 2. A/D severity variables NOT related to ↑MTC

Table 3. A/D-related problems related to ↑MTC
- Legal - history of incarceration, DUI
- Family - youth participation, follows rules
- School/work - lost interest in schoolwork
- Health - less active, uses A/D for sleep
- Mental - ↑depression, ↑humility, ↓anger

DISCUSSION

- Characteristics that promote ↑MTC: R/S, family cohesion/rules, hopelessness, sleep problems, DUI/jail history
- Barriers to ↑MTC: sexual abuse, defiance, anger
- Clinical Implications: ↑MTC does not depend upon A/D severity, increase youth awareness of A/D consequences may ↑MTC
- Future study: what characteristics sustain MTC?
- Limitations: cross-sectional, unclear generalizability to non-mandated youths with less A/D severity

ACKNOWLEDGEMENTS

The authors thank New Directions staff and study participants.

Sources of Support: This research was supported in part by grants from the National Institute on Alcohol Abuse and Alcoholism (NIAAA, K01 AA015137) and the John Templeton Foundation (JTF) awarded to Dr. Pagano.

Disclaimer: The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIAAA, the National Institutes of Health, or JTF. The NIAAA and the JTF had no further role in study design, data collection and analysis, writing of the report, or the decision to submit the paper for publication.