Online Supplement

Sociodemographic and clinical correlates of stimulant medication adherence in the discovery set (N=1,662).
Bivariate analyses comparing rates of stimulant medication adherence between patients with different demographic and treatment characteristics. There were small but statistically significant differences in the rates of stimulant medication adherence when examining age, sex, race, medication formulation, and prescribing clinic.

Characteristic	Non-adherent to Treatment N=900		Adherent to Treatment N=762		P-Value
	N	Row %	N	Row %	
Age (Mean ± SD)	12.5±3.0		12.1±3.0		.005
Age Group					.07
Child (age <12) (N=673)	346	51	327	49	
Adolescent (age ≥12) (N=989)	554	56	435	44	
Sex					.02
Male (N=1,217)	638	52	579	48	
Female (N=445)	262	59	183	41	
Racial-ethnic Group[†]					.002
Caucasian (N=1,189)	673	57	516	43	
Not Caucasian (N=473)	227	48	246	52	
Primary Language					.33
English (N=1,522)	830	55	692	45	
Not English (N=140)	70	50	70	50	
Economic Class					.22
Lower (N=562)	288	51	274	49	
Middle (N=548)	308	56	240	44	
Upper (N=552)	304	55	248	45	
Medication Formulation					.97
Long-acting (N=1,214)	657	54	557	46	
Short-acting (N=448)	243	54	205	46	
Medication Type					.002
Methylphenidate (N=1,193)	617	52	576	48	
Amphetamine (N=469)	283	60	186	40	
Prescription Source					.001
Psychiatric Clinic (N=694)	335	48	359	52	
Non-psychiatric Clinic (N=968)	565	58	403	42	

SD=standard deviation; [†] Racialethnic group combined into Caucasian versus non-Caucasian for analysis. Breakdown in discovery set is as follows: Caucasian: N=1147 (69.0%); Black: N=101 (6.1%); Asian: N=36 (2.2%); Hispanic: N=263 (15.8%); Native American: N=5 (0.3%); Other: N=51 (3.1%); Not Reported: N=59 (3.5%)

Predictors of stimulant medication adherence in the discovery set (N=1,662.) Multivariable logistic regression predicting stimulant medication adherence from demographic characteristics with p-values≤.10 in the bivariate analyses and all treatment characteristics. The characteristics that remained significantly associated with stimulant medication adherence after controlling for all other variables were *age, race, medication type, and clinic source*. However, overall, this model yielded an AUC statistic of .59 indicating that these demographic and treatment characteristics were only modestly better than chance.

Variable	Adherent to Treatment versus Non-adherent to Treatment		
	OR	95% CI	P-Value
Age	.97	.93 – .99	.047
Male (reference: female)	1.24	.99 – 1.55	.06
Caucasian (reference: non-Caucasian)	.69	.55 – .86	.001
Long-acting Formulation (reference: short-acting formulation)	1.04	.83 – 1.31	.72
Methylphenidate (reference: amphetamine)	1.34	1.07 – 1.67	.01
Prescription from Psychiatry Clinic (reference: non-psychiatry clinic)	1.58	1.23 – 2.02	<.001

OR=odds ratio; CI=confidence interval

Sociodemographic and clinical correlates of stimulant medication adherence in the replication set (N=544).
Bivariate analyses comparing rates of stimulant medication adherence between patients with different demographic and treatment characteristics. There were small but statistically significant differences in medication formulation and economic status. Applying the same multivariable logistic regression model from the discovery set to predict stimulant medication adherence in the replication set, we got an AUC statistic of .58, indicating an absence of overfitting in the initial model and suggesting again that demographic and treatment characteristics alone were poor predictors of stimulant medication adherence.

Characteristic	Non-adherent to Treatment N=283		Adherent to Treatment N=261		P-Value
	N	Row %	N	Row %	
Age (Mean ± SD)	12.5±3.0		12.2±3.0		.24
Age					.34
Child (age <12) (N=224)	111	50	113	50	
Adolescent (age ≥12) (N=320)	172	54	148	46	
Sex					.26
Male (N=407)	206	51	201	49	
Female (N=137)	77	56	60	44	
Race[†]					.86
Caucasian (N=379)	196	52	183	48	
Not Caucasian (N=165)	87	53	78	47	
Primary Language					.71
English (N=493)	255	52	238	48	
Not English (N=51)	28	55	23	45	
Economic Status					.01
Lower (N=177)	79	45	98	55	
Middle (N=182)	93	51	89	49	
Upper (N=185)	111	60	74	40	
Medication Formulation					.04
Long-acting (N=425)	211	52	214	48	
Short-acting (N=119)	72	60	47	40	
Medication Type					.42
Methylphenidate (N=380)	202	52	178	47	
Amphetamine (N=164)	81	49	83	51	
Prescription Source					.28
Psychiatry Clinic (N=232)	114	49	118	51	
Non-psychiatry Clinic (N=312)	169	54	143	46	

SD=standard deviation; [†]Race combined into Caucasian versus non-Caucasian for analysis. Breakdown in discovery set is as follows: Caucasian: N=364 (66.9%); Black: N=37 (6.8%); Asian: N=14 (2.6%); Hispanic: N=89 (16.4%); Native American: N=0 (0%); Other: N=18 (3.3%); Not Reported: N=22 (4.0%)