

Appendix I. Prescreen PACT Descriptive Statistics

Item	Coding	Min.	Max.	Total (n = 64,746)		Males (n = 48,560)		Females (n = 16,186)				
				%	Mean	SD	%	Mean	SD	%	Mean	SD
CRIMINAL HISTORY												
Age at first offense		0	4		2.23	1.21		2.24	1.22		2.19	1.18
Over 16	0			11.7			11.9			11.2		
16	1			16.8			16.4			17.6		
15	2			21.2			20.7			22.3		
13 to 14	3			38.0			37.7			38.8		
Under 13	4			12.4			13.3			10.1		
Misdemeanor complaints		0	3		0.59	0.84		0.60	0.85		0.56	0.80
None or one	0			61.0			61.0			61.0		
Two	1			22.1			21.4			23.8		
Three or four	2			13.9			14.3			13.1		
Five or more	3			3.0			3.3			2.2		
Felony complaints		0	6		0.81	1.31		0.96	1.40		0.47	0.99
None	0			66.8			61.5			79.6		
One	2			27.6			31.5			18.1		
Two	4			3.7			4.5			1.7		
Three or more	6			1.9			2.5			0.6		
Weapon complaints		0	1		0.06	0.23		0.08	0.26		0.02	0.14
None	0			94.1			92.5			98.1		
One or more	1			5.9			7.5			1.9		
Against-person misdemeanor complaints		0	2		0.40	0.63		0.38	0.62		0.45	0.65
None	0			67.5			69.1			63.8		
One	1			24.9			23.7			27.7		
Two or more	2			7.6			7.2			8.5		
Against-person felony complaints		0	4		0.25	0.68		0.30	0.73		0.15	0.53
None	0			87.7			85.5			92.9		
One or two	2			12.0			14.1			7.0		
Three or more	4			0.3			0.4			0.1		
Number of times served at least 24hrs in detention		0	3		0.53	0.85		0.57	0.87		0.45	0.79
None	0			64.4			62.3			69.3		
One	1			24.1			25.4			21.0		
Two	2			5.6			5.8			5.1		
Three or more	3			6.0			6.5			4.6		
Number of times served at least 24hrs confined under JRA		0	4		0.10	0.51		0.11	0.55		0.05	0.37
None	0			96.1			95.4			97.9		
One	2			2.9			3.5			1.7		
Two or more	4			0.9			1.1			0.4		
Escapes		0	2		0.01	0.10		0.01	0.11		0.01	0.09
None	0			99.2			99.2			99.4		
One	1			0.7			0.7			0.6		
Two or more	2			0.1			0.1			0.1		
Failure to appear in court warrants		0	2		0.23	0.58		0.23	0.57		0.25	0.59

None	0	84.1	84.5	83.2
One	1	8.3	8.1	8.7
Two or more	2	7.6	7.4	8.0
SCHOOL				
School scoring	0	2	0.64	0.88
None of the following	0	63.5	63.0	64.7
Enrolled: Problems reported by teachers or calls to parents, or some full-day unexcused absences, or mostly Cs and Ds, some Fs	1	9.5	9.7	8.8
Enrolled: Calls to police, or truancy petition or equivalent, or some Ds and mostly Fs OR dropped out, expelled or suspended	2	27.1	27.3	26.5
CURRENT FRIENDS/COMPANIONS				
Friends/companions scoring	0	3	1.00	0.84
Has pro-social friends, no anti-social friends	0	27.7	27.3	28.6
Has no friends, or pro-social and anti-social friends	1	53.4	53.0	54.3
Has all anti-social friends	2	10.7	10.5	11.4
Is a gang member/associate	3	8.2	9.3	5.7
HISTORY OF COURT-ORDERED OR DSHS VOLUNTARY OUT-OF-HOME & SHELTER CARE PLACEMENTS EXCEEDING 30 DAYS				
History of court-ordered placements scoring	0	1	0.15	0.35
None	0	85.5	86.7	82.6
One, two or three/more	1	14.5	13.3	17.4
HISTORY OF RUNAWAYS OR TIMES KICKED OUT OF HOME				
History of runaway scoring	0	2	0.55	0.84
No history	0	67.6	71.1	59.1
One instance	1	9.5	9.1	10.6
Two or more instances	2	22.9	19.8	30.2
JAIL/IMPRISONMENT HISTORY				
Jail/imprisonment scoring	0	1	0.43	0.49
No sibling(s), mother, father jail/imprisonment	0	57.2	58.4	54.5
Sibling(s), mother or father jail/imprisonment	1	42.8	41.6	45.5
CURRENT PARENTAL AUTHORITY & CONTROL				
Parental authority and control scoring	0	2	1.14	0.99
Usually obeys	0	43.0	43.7	41.5
Sometimes obeys	1	0.0	0.0	0.0

Disobeys	2		57.0		56.3		58.5			
ALCOHOL & DRUG USE										
Alcohol & drug use scoring		0	2		0.57	0.90		0.59	0.91	0.53 0.88
Current alcohol/drugs not causing family conflict, disrupting education, causing health problems, interfering with keeping pro-social friends or contributing to criminal behavior	0			71.3			70.3			73.7
Current alcohol/drugs causing family conflict, or disrupting education, or causing health problems, or interfering with keeping pro-social friends or contributing to criminal behavior	2			28.7			29.7			26.3
HISTORY OF ABUSE										
History of physical abuse scoring		0	1		0.23	0.42		0.19	0.39	0.32 0.47
No physical or sexual abuse	0			77.0			80.8			68.0
Physical or sexual abuse	1			23.0			19.2			32.0
HISTORY OF BEING A VICTIM OF NEGLECT										
History of being a victim of neglect scoring		0	2		0.28	0.69		0.26	0.67	0.33 0.74
Not a victim of neglect	-1			86.1			87.1			83.6
Victim of neglect	1			13.9			12.9			16.4
HISTORY OF MENTAL HEALTH PROBLEMS										
History of mental health problems scoring		0	1		0.12	0.32		0.10	0.31	0.15 0.35
No history of mental health problem(s)	0			88.3			89.5			85.5
Diagnosed with mental health problem(s), only medication prescribed, only treatment prescribed or medication and treatment prescribed	1			11.7			10.5			14.5

Appendix II. Full PACT Descriptive Statistics

	Dynamic item (X)	Coding	Total (n = 50,862)			Males (n = 38,100)			Females (n = 12,762)		
Item			Min.	Max.	%	Mean	SD	%	Mean	SD	%
CRIMINAL HISTORY											
Age at first offense			0	4		2.70	1.05		2.71	1.06	2.64
Over 16		0			4.2			4.3			3.9
16		1			10.5			10.4			10.8
15		2			18.5			18.1			19.6
13 to 14		3			45.5			44.5			48.4

Under 13	4			21.4			22.8			17.4		
Misdemeanor complaints		0	3		1.08	1.02		1.08	1.03		1.09	0.97
None or one	0			37.8			38.7			35.0		
Two	1			26.0			25.0			29.1		
Three or four	2			26.2			25.7			27.9		
Five or more	3			9.9			10.6			8.0		
Felony complaints		0	6		1.48	1.69		1.65	1.74		0.96	1.40
None	0			46.9			41.9			61.6		
One	2			37.8			40.1			30.8		
Two	4			10.1			11.7			5.4		
Three or more	6			5.3			6.3			2.2		
Weapon complaints		0	1		0.10	0.30		0.13	0.33		0.04	0.19
None	0			89.6			87.5			96.1		
One or more	1			10.4			12.5			3.9		
Against-person misdemeanor complaints		0	2		0.59	0.75		0.56	0.74		0.68	0.78
None	0			56.9			58.8			51.2		
One	1			27.0			26.2			29.3		
Two or more	2			16.1			15.0			19.5		
Against-person felony complaints		0	4		0.38	0.81		0.42	0.84		0.27	0.71
None	0			81.4			79.7			86.6		
One or two	2			18.1			19.8			13.1		
Three or more	4			0.5			0.5			0.3		
Sexual misconduct misdemeanor complaints		0	2		0.02	0.17		0.03	0.18		0.01	0.11
None	0			97.7			97.5			99.2		
One	1			1.8			2.2			0.6		
Two or more	2			0.3			0.3			0.2		
Felony sex offense referrals		0	2		0.04	0.20		0.05	0.23		0.01	0.08
None	0			96.5			95.5			99.4		
One	1			3.3			4.2			0.5		
Two or more	2			0.3			0.3			0.0		
Number of times served at least 24hrs in detention		0	3		1.41	1.10		1.42	1.10		1.37	1.09
None	0			23.5			23.1			24.7		
One	1			36.5			36.4			36.6		
Two	2			15.6			15.5			16.0		
Three or more	3			24.4			25.0			22.7		
Number of times served at least 24hrs confined under JRA		0	4		0.19	0.71		0.21	0.74		0.14	0.61
None	0			92.3			91.5			94.6		
One	2			5.8			6.4			3.9		
Two or more	4			1.9			2.1			1.5		
Escapes		0	2		0.02	0.13		0.02	0.13		0.02	0.14
None	0			98.5			98.6			98.4		
One	1			1.4			1.3			1.5		
Two or more	2			0.1			0.1			0.1		
Failure to appear in court warrants		0	2		0.53	0.79		0.51	0.78		0.62	0.83
None	0			65.8			67.5			60.7		

One	1			15.1		14.5		16.9		
Two or more	2			19.1		18.0		22.4		
SCHOOL HISTORY										
Special education need		0	1		0.60	0.49		0.56	0.50	0.72 0.45
No need	0			60.2				56.2		72.1
Need	1			39.8				43.8		27.9
No special education need		0	1		-0.60	0.49		-0.56	0.50	-0.72 0.45
Need	0			39.9				43.9		28.0
No need	1			60.1				56.1		72.0
Learning disability		0	1		0.20	0.40		0.22	0.42	0.14 0.34
No	0			79.9				77.7		86.3
Yes	1			20.1				22.3		13.7
Behavioral problem		0	1		0.21	0.40		0.23	0.42	0.14 0.34
No	0			79.3				77.0		86.3
Yes	1			20.7				23.0		13.7
Mental retardation		0	1		0.01	0.08		0.01	0.08	0.00 0.07
No	0			99.4				99.3		99.5
Yes	1			0.6				0.7		0.5
ADHD		0	1		0.15	0.36		0.18	0.38	0.08 0.28
No	0			84.7				82.4		91.5
Yes	1			15.3				17.6		8.5
History of expulsions and suspensions since the first grade		-1	2		1.54	0.96		1.61	0.89	1.33 1.11
None	-1			11.2				9.2		17.0
One	1			12.6				11.5		16.1
Two or more	2			76.2				79.3		66.9
Age at first expulsion or suspension		-1	2		1.49	0.96		1.56	0.89	1.28 1.10
None	-1			11.2				9.2		17.0
14 to 18	1			18.0				16.8		21.5
13 or under	2			70.9				74.0		61.5
Enrolled in a community school during the last 6 months	X		-2	2		-1.51	1.31		-1.52	1.30 -1.47 1.35
Graduated/enrolled	-2			87.7				88.0		86.9
Not enrolled	2			12.3				12.0		13.1
CURRENT SCHOOL STATUS										
Current school enrollment status	X		-2	3		-1.18	1.69		-1.15	1.73 -1.27 1.59
Full-time/graduated	-2			72.6				72.2		73.6
Part-time	-1			13.8				13.5		14.7
Drop-out, expelled, or suspended	3			13.6				14.2		11.7
Youth believes there is value in getting an education	X		-1	2		0.43	1.11		0.46	1.10 0.32 1.12
Believes	-1			35.3				33.8		39.9
Somewhat believes	1			51.2				52.1		48.3
Does not believe	2			13.5				14.1		11.9
Youth believes school provides an encouraging environment for him or her	X		-1	2		0.85	1.07		0.86	1.06 0.83 1.08
Believes	-1			21.9				21.6		23.0
Somewhat believes	1			49.2				49.4		48.5

Does not believe		2			28.9		29.0		28.5		
School staff youth likes or feels comfortable talking with	X		-2	0		-0.59	0.75		-0.59	0.75	-0.60 0.75
Two or more		-2			16.1		16.2		15.9		
One		-1			27.2		26.8		28.5		
None		0			56.6		57.0		55.6		
Involvement in school activities during most recent term	X		-2	2		1.17	1.14		1.15	1.16	1.23 1.11
Involved in two or more		-2			4.0		4.1		3.4		
Involved in one		-1			11.5		11.9		10.6		
Interested but not involved		1			32.4		32.7		31.5		
Not interested		2			52.1		51.3		54.5		
Conduct in most recent term	X		-2	3		1.04	1.55		1.09	1.55	0.89 1.56
Good behavior		-2			1.6		1.5		1.9		
No problems		-1			30.4		29.4		33.7		
Problems reported by teachers		1			16.4		16.3		16.6		
Problem calls to parents		2			33.6		33.6		33.3		
Calls to police		3			18.1		19.2		14.6		
Number of expulsions & suspensions in most recent term	X		-1	3		0.24	1.34		0.30	1.35	0.06 1.29
None		-1			50.2		48.0		56.9		
One		1			30.6		31.5		27.8		
Two or three		2			13.8		14.6		11.3		
More than three		3			5.4		5.9		4.0		
Attendance in most recent term	X		-2	3		1.09	1.79		1.01	1.80	1.31 1.77
Good attendance		-2			14.5		15.1		12.7		
No unexcused absences		-1			14.2		15.0		11.9		
Some partial-day absences		1			18.2		18.8		16.1		
Some full-day absences		2			25.7		25.8		25.5		
Truant		3			27.4		25.3		33.8		
Academic performance in most recent term	X		-3	2		0.71	1.32		0.74	1.30	0.61 1.38
Mostly As		-3			0.6		0.5		0.8		
Mostly As and Bs		-2			4.8		4.4		6.1		
Mostly Bs and Cs		-1			23.9		23.2		26.1		
Mostly Cs and Ds		1			35.5		6.5		32.3		
Some Ds and mostly Fs		2			35.2		35.4		34.7		
Likelihood youth will stay in and graduate from high school or vocational school	X		-1	2		0.80	1.01		0.81	1.01	0.75 1.02
Very likely		-1			21.2		20.8		22.5		
Uncertain		1			56.9		56.6		57.7		
Not likely		2			21.9		22.7		19.8		
HISTORIC USE OF FREE TIME											
History of pro-social structured recreational activities within past 5yrs			-2	0		-0.93	0.77		-0.94	0.77	-0.89 0.77
Involved in two or more		-2			26.5		27.0		24.9		
Involved in one		-1			39.8		40.1		38.9		
Never involved		0			33.7		32.9		36.1		

History of unstructured pro-social recreational activities within past 5yrs		-2	0		-1.08	0.74		-1.11	0.74		-0.99	0.75
Involved in two or more		-2		31.6			33.0			27.2		
Involved in one		-1		44.5			44.6			44.1		
Never involved		0		23.9			22.3			28.7		
CURRENT USE OF FREE TIME												
Current interest & involvement supervised, structured pro-social recreational activities	X	-3	0		-0.80	0.87		-0.82	0.88		-0.75	0.85
Involved in two or more		-3		4.4			4.7			3.5		
Involved in one		-2		16.8			17.1			16.0		
Interested but not involved		-1		33.1			33.3			32.7		
Not interested		0		45.6			44.9			47.8		
Types of structured recreational activities in which youth currently participates	X											
No pro-social activities		0	1		0.21	0.41		0.21	0.41		0.19	0.39
None		0		79.1			78.5			80.8		
One or more		1		20.9			21.5			19.2		
Current interest & involvement in pro-social unstructured recreational activities	X	-3	1		-1.17	1.48		-1.24	1.47		-0.95	1.50
Involved in two or more		-3		19.5			20.7			15.8		
Involved in one		-2		33.0			34.3			29.1		
Interested but not involved		-1		19.9			19.1			22.2		
Not interested		1		27.7			25.9			33.0		
EMPLOYMENT HISTORY												
History of employment		-1	0		-0.22	0.42		-0.23	0.42		-0.19	0.40
Has been employed		-1		22.2			23.1			19.4		
Too young or never employed		0		77.8			76.9			80.6		
History of successful employment		-1	0		-0.79	0.40		-0.80	0.40		-0.77	0.42
Yes		-1		79.5			80.1			77.4		
No		0		20.5			19.9			22.6		
History of problems while employed		0	2		0.42	0.66		0.39	0.65		0.51	0.71
Never fired/quit		0		68.2			69.9			61.9		
Fired/quit: Poor performance		1		22.1			21.1			25.5		
Fired/quit: Didn't get along		2		9.8			9.0			12.6		
History of positive personal relationship(s) with past employer(s) or adult coworker(s)		-2	0		-0.89	0.74		-0.90	0.74		-0.88	0.75
Two or more		-2		22.5			22.5			22.8		
One		-1		44.2			44.7			42.5		
None		0		33.2			32.8			34.7		
CURRENT EMPLOYMENT												
Understanding of what is required to maintain a job	X	-2	0		-0.64	0.65		-0.65	0.65		-0.62	0.64
Demonstrated ability		-2		9.5			9.8			8.8		
Has knowledge		-1		44.8			45.0			44.3		
Lacks knowledge		0		45.6			45.2			46.9		

Current interest in employment	X	-3	0	-0.96	0.93	-0.98	0.93	-0.90	0.92
Employed		-3		5.7		5.9		5.1	
Not employed, high interest		-2		23.7		24.1		22.5	
Not employed, some interest		-1		31.4		31.8		30.1	
Not interested or too young		0		39.2		38.2		42.3	
Current employment status	X	-1	1	-0.15	0.51	-0.09	0.30	-0.08	0.29
Employment going well		-1		9.2		9.4		8.5	
Not employed		0		90.4		90.2		91.0	
Problems with current employment		1		0.5		0.5		0.5	
Current positive personal relationship(s) with employer(s) or adult coworker(s)	X	-1	0	-0.15	0.35	-0.15	0.35	-0.14	0.35
One or more positive relationships		-1		14.5		14.6		14.4	
Not employed or employed, no positive relationships		0		85.5		85.4		85.6	
HISTORY OF RELATIONSHIPS									
History of positive adult non-family relationships no connected to school or employment		-3	0	-0.81	0.92	-0.81	0.92	-0.81	0.91
Three or more		-3		7.1		7.2		6.9	
Two		-2		13.1		13.0		13.4	
One		-1		33.4		33.1		34.1	
None		0		46.5		46.7		45.7	
History of anti-social friends/companions (overall)		-1	3	1.35	1.02	1.38	1.05	1.32	0.94
Only prosocial		-1		7.2		7.5		6.2	
No friends or mix of antisocial and prosocial friends		1		61.6		60.5		64.9	
Only antisocial		2		11.8		11.2		13.8	
Gang member		3		19.4		20.8		15.1	
Never had consistent friends		0	1	0.06	0.24	0.07	0.25	0.05	0.22
No		0		93.7		93.3		94.8	
Yes		1		6.3		6.7		5.2	
Only pro-social friends		0	1	0.75	0.43	0.74	0.44	0.76	0.43
No		0		25.2		25.5		24.3	
Yes		1		74.8		74.5		75.7	
Pro-social and anti-social friends		0	1	0.68	0.47	0.67	0.47	0.70	0.46
No		0		32.4		33.1		30.5	
Yes		1		67.6		66.9		69.5	
Only anti-social friends		0	1	0.86	0.35	0.85	0.35	0.88	0.32
No		0		14.0		14.7		11.6	
Yes		1		86.0		85.3		88.4	
Gang member		0	1	0.19	0.40	0.21	0.41	0.15	0.36
No		0		80.6		79.2		84.9	
Yes		1		19.4		20.8		15.1	
CURRENT RELATIONSHIPS									

Current positive adult non-family relationships not connected to school or employment	X	-3	0	-0.73	0.88	-0.72	0.88	-0.73	0.88
Three or more		-3		5.9		6.0		5.9	
Two		-2		11.2		11.1		11.3	
One		-1		32.5		32.3		32.8	
None		0		50.5		50.6		50.1	
Current pro-social community ties	X	-2	0	-0.64	0.56	-0.65	0.56	-0.63	0.56
Strong ties		-2		4.3		4.4		3.8	
Some ties		-1		55.7		55.7		55.5	
None		0		40.1		39.9		40.7	
Current friends/companions youth spends time with (overall)	X	-1	3	1.42	1.07	1.43	1.10	1.38	0.99
Only prosocial		-1		8.3		8.6		7.1	
No friends or mix of antisocial and prosocial		1		54.3		53.6		56.3	
Only antisocial		2		16.9		15.6		20.7	
Gang member		3		20.6		22.1		15.9	
No consistent friends		0	1	0.09	0.28	0.09	0.29	0.08	0.27
No		0		91.3		91.0		92.3	
Yes		1		8.7		9.0		7.7	
Only pro-social friends		0	1	0.64	0.49	0.64	0.48	0.64	0.48
No		0		35.7		35.6		36.0	
Yes		1		64.3		64.6		64.0	
Pro-social and anti-social friends		0	1	0.56	0.50	0.56	0.50	0.57	0.50
No		0		44.0		44.3		43.2	
Yes		1		56.0		55.7		56.8	
Only anti-social friends		0	1	0.83	0.38	0.82	0.38	0.85	0.36
No		0		17.2		17.9		14.8	
Yes		1		82.8		82.1		85.2	
Is a gang member		0	1	0.21	0.40	0.22	0.42	0.16	0.37
No		0		79.4		77.9		84.1	
Yes		1		20.6		22.1		15.9	
Currently in a romantic, intimate, or sexual relationship	X	-1	1	-0.03	0.56	-0.10	0.51	0.20	0.63
Involved with prosocial person		-1		17.0		18.8		11.9	
Not involved		0		68.7		72.7		56.5	
Involved with antisocial person		1		14.3		8.5		31.6	
Currently admires anti-social peers	X	-1	2	0.77	1.08	0.76	1.08	0.78	1.07
No		-1		24.1		24.4		23.2	
Somewhat		1		50.7		50.3		52.0	
Yes		2		25.2		25.3		24.8	
Current resistance to anti-social peer influence	X	-2	2	0.09	1.23	0.07	1.24	0.12	1.20
No association		-2		10.3		10.8		8.6	
Usually resists		-1		33.9		33.7		34.4	
Rarely resists		1		48.8		48.1		50.7	
Leads antisocial peers		2		7.1		7.3		6.3	

FAMILY HISTORY										
History of court-ordered or DSHS voluntary out-of-home and shelter care placements exceeding 30 days		-1	3		-0.37	1.21		-0.44	1.16	-0.18 1.35
None	-1			76.7		79.0			70.0	
One	1			13.1		12.1			16.1	
Two	2			4.0		3.6			5.5	
Three or more	3			6.1		5.3			8.5	
History of running away or getting kicked out of home		-1	4		1.02	1.97		0.74	1.91	1.83 1.93
No history	-1			43.3		49.3			25.3	
One instance	1			13.1		13.3			12.6	
Two to three	2			17.5		16.4			20.7	
Four to five	3			7.2		6.1			10.5	
Over five	4			18.9		14.9			30.8	
History of petitions filed		-1	1		-0.57	0.82		-0.63	0.78	-0.41 0.91
No history	-1			78.7		81.4			70.5	
History	1			21.3		18.6			29.5	
History of jail/imprisonment of persons involved in the household for at least 3 months (overall)		-1	1		0.28	0.96		0.24	0.97	0.37 0.93
No history	-1			36.2		37.8			31.3	
History	1			63.8		62.2			68.7	
No family imprisonment		0	1		0.36	0.48		0.38	0.49	0.32 0.46
History	0			63.7		62.1			68.5	
No history	1			36.3		37.9			31.5	
Mother/female caretaker		0	1		0.31	0.46		0.29	0.45	0.38 0.49
No	0			68.7		71.1			61.8	
Yes	1			31.3		28.9			38.2	
Father/male caretaker		0	1		0.43	0.50		0.43	0.49	0.45 0.50
No	0			56.6		57.2			54.7	
Yes	1			43.4		42.8			45.3	
Sibling		0	1		0.21	0.41		0.20	0.40	0.24 0.42
No	0			78.8		79.6			76.4	
Yes	1			21.2		20.4			23.6	
Other family member		0	1		0.08	0.26		0.07	0.25	0.09 0.29
No	0			92.5		93.1			90.5	
Yes	1			7.5		6.9			9.5	
Has been living under any adult supervision	X	-1	1		-0.95	0.30		-0.96	0.28	-0.94 0.34
Yes	-1			97.7		98.0			96.9	
No	1			2.3		2.0			3.1	
CURRENT LIVING ARRANGEMENTS										
Currently living with (overall)	X	-1	1		-0.83	0.39		-0.84	0.38	-0.80 0.42
Mother or father	-1			83.5		84.4			80.7	
Living alone or with other	0			15.9		15.0			18.6	
Transient	1			0.6		0.5			0.7	
Living alone		0	1		0.00	0.03		0.00	0.03	0.00 0.03

No	0			99.9			99.9			99.9		
Yes	1			0.1			0.1			0.1		
Transient living		0	1		0.01	0.08		0.01	0.08		0.01	0.10
No	0			99.3			99.4			99.1		
Yes	1			0.7			0.6			0.9		
Mother		0	1		0.73	0.44		0.74	0.44		0.70	0.46
No	0			27.0			26.1			29.5		
Yes	1			73.0			73.9			70.5		
Father		0	1		0.45	0.50		0.47	0.50		0.40	0.49
No	0			54.6			52.7			60.4		
Yes	1			45.5			47.3			39.6		
Sibling(s)		0	1		0.60	0.49		0.61	0.49		0.56	0.50
No	0			40.5			39.4			43.6		
Yes	1			59.5			60.6			56.4		
Grandparent(s)		0	1		0.11	0.32		0.11	0.31		0.12	0.33
No	0			88.6			88.8			87.9		
Yes	1			11.4			11.2			12.1		
Other relative(s)		0	1		0.17	0.38		0.16	0.37		0.19	0.39
No	0			82.9			83.6			81.1		
Yes	1			17.1			16.4			18.9		
Foster/group home		0	1		0.05	0.22		0.04	0.20		0.07	0.25
No	0			95.1			95.7			93.3		
Yes	1			4.9			4.3			6.7		
Friends		0	1		0.02	0.13		0.02	0.13		0.02	0.15
No	0			98.2			98.4			97.8		
Yes	1			1.8			1.6			2.2		
Annual combined income youth & family	X	-2	2		0.87	1.20		0.84	1.21		0.95	1.15
\$50,000 and over	-2			7.3			7.7			6.0		
\$35,000 to \$49,000	-1			11.9			12.1			11.0		
\$15,000 to \$34,999	1			48.7			48.9			48.2		
Under \$15,000	2			32.2			31.3			34.8		
Jail/imprisonment history of persons involved with the household (overall)	X	-1	1		-0.08	1.00		-0.10	1.00		-0.01	1.00
No history	-1			52.6			55.0			50.4		
History	1			46.2			45.0			49.6		
No jail		0	1		0.54	0.50		0.55	0.50		0.50	0.50
Imprisoned	0			46.3			45.1			50.1		
Not imprisoned	1			53.7			54.9			49.9		
Mother		0	1		0.20	0.40		0.19	0.39		0.24	0.43
No	0			80.0			81.5			75.5		
Yes	1			20.0			18.5			24.5		
Father		0	1		0.21	0.41		0.21	0.41		0.20	0.40
No	0			79.1			78.9			79.7		
Yes	1			20.9			21.1			20.3		
Sibling		0	1		0.15	0.36		0.15	0.36		0.16	0.37
No	0			84.9			85.2			84.0		
Yes	1			15.1			14.8			16.0		
Other family member		0	1		0.05	0.21		0.04	0.20		0.06	0.24

No	0			95.2			95.6			94.0		
Yes	1			4.8			4.4			6.0		
Problem history of parents involved with the household (overall)	X		-1	1		0.04	1.00		0.00	1.00		0.14 0.99
No history	-1			48.1			49.8			42.9		
History	1			51.9			50.2			57.1		
No problem history		0	1		0.48	0.50		0.50	0.50		0.43	0.05
History	0			51.6			49.8			56.9		
No history	1			48.4			50.2			43.1		
Alcohol history		0	1		0.26	0.44		0.25	0.43		0.29	0.45
No	0			74.4			75.5			71.1		
Yes	1			25.6			24.5			28.9		
Drug history		0	1		0.22	0.41		0.21	0.41		0.25	0.44
No	0			78.0			79.1			74.5		
Yes	1			22.0			20.9			25.5		
Physical health history		0	1		0.17	0.37		0.16	0.37		0.18	0.38
No	0			83.5			84.0			82.0		
Yes	1			16.5			16.0			18.0		
Mental health history		0	1		0.14	0.35		0.13	0.34		0.18	0.38
No	0			85.8			86.9			82.4		
Yes	1			14.2			13.1			17.6		
Employment history		0	1		0.24	0.43		0.23	0.42		0.26	0.44
No	0			76.2			76.9			74.0		
Yes	1			23.8			23.1			26.0		
Problem history of sibling involved with the household (overall)	X		-1	1		-0.25	0.76		-0.27	0.76		-0.18 0.78
No history	-1			44.8			46.2			40.7		
No siblings	0			35.4			35.0			36.7		
History	1			19.8			18.8			22.6		
No siblings in the house		0	1		0.65	0.48		0.66	0.47		0.64	0.48
None	0			34.6			34.3			35.6		
One or more	1			65.4			65.7			64.4		
No problem history of siblings		0	1		0.44	0.50		0.45	0.50		0.50	0.49
History	0			56.0			54.5			60.3		
No history	1			44.0			45.5			39.7		
Alcohol history		0	1		0.10	0.30		0.09	0.29		0.12	0.32
No	0			90.1			90.6			88.5		
Yes	1			9.9			9.4			11.5		
Drug history		0	1		0.13	0.34		0.12	0.33		0.15	0.35
No	0			87.0			87.5			85.4		
Yes	1			13.0			12.5			14.6		
Physical health history		0	1		0.02	0.13		0.02	0.12		0.02	0.14
No	0			98.3			98.4			97.9		
Yes	1			1.7			1.6			2.1		
Mental health history		0	1		0.05	0.23		0.05	0.22		0.07	0.25
No	0			94.6			95.0			93.2		
Yes	1			5.4			5.0			6.8		
Employment history		0	1		0.03	0.17		0.03	0.17		0.04	0.18
No	0			96.9			97.0			96.5		

Yes		1			3.1			3.0		3.5		
Support network for family	X		-2	0		-0.97	0.58		-0.98	0.58	-0.93	0.57
Strong		-2			15.3			16.1		12.9		
Some		-1			66.2			65.8		67.3		
None		0			18.5			18.1		19.8		
Family willingness to help support youth	X		-1	3		0.00	1.19		-0.05	1.17	0.16	1.23
Consistent willingness		-1			56.0			58.1		49.6		
Inconsistent support		1			35.6			34.1		40.2		
Not willing		2			5.2			5.0		5.8		
Hostile, berating, belittling		3			3.3			2.9		4.4		
Family provides opportunities for youth to participate in family activities and decisions affecting youth	X		-1	2		0.78	0.93		0.76	0.94	0.85	0.91
Yes		-1			19.0			19.8		16.6		
Some		1			65.0			65.1		64.8		
No		2			16.0			15.1		18.6		
Has run away or been kicked out	X		-1	2		-0.15	1.03		-0.26	1.00	0.15	1.05
No		-1			58.9			63.8		44.3		
Yes		1			38.6			34.2		51.8		
Current runaway		2			2.5			2.0		3.9		
Family member(s) youth feels close to or has good relationship with (overall)	X		-1	1		-0.59	0.81		-0.62	0.79	-0.51	0.86
Close		-1			79.5			80.8		75.4		
Not close		1			20.5			19.2		24.6		
Not close to family			0	1		0.20	0.40		0.19	0.39	0.24	0.43
Close		0			79.9			81.2		76.2		
Not close		1			20.1			18.8		23.8		
Close to mother			0	1		0.50	0.50		0.52	0.50	0.44	0.50
Not close		0			50.1			48.1		56.2		
Close		1			49.9			51.9		43.8		
Close to father			0	1		0.21	0.41		0.24	0.42	0.14	0.35
Not close		0			78.7			76.4		85.7		
Close		1			21.3			23.6		14.3		
Close to male sibling			0	1		0.18	0.38		0.20	0.40	0.13	0.33
Not close		0			82.2			80.5		87.3		
Close		1			17.8			19.5		12.7		
Close to female sibling			0	1		0.16	0.36		0.15	0.35	0.18	0.39
Not close		0			84.4			85.3		81.6		
Close		1			15.6			14.7		18.4		
Close to extended family			0	1		0.19	0.39		0.19	0.39	0.20	0.40
Not close		0			80.8			80.9		80.3		
Close		1			19.2			19.1		19.7		
Level of conflict in household	X		-1	3		0.84	1.41		0.74	1.40	1.14	1.39
Some, well-managed		-1			30.4			33.2		22.1		
Verbal intimidation		1			42.9			42.5		43.9		
Threats of physical abuse		2			8.9			8.6		9.7		
Domestic violence		3			17.8			15.7		24.3		
Parental supervision	X		-1	2		0.49	1.22		0.47	1.21	0.56	1.22

Consistent	-1			37.4			38.1			35.4		
Sporadic	1			38.6			38.7			38.3		
Inadequate	2			24.0			23.2			26.3		
Parental authority and control	X		-1	2		0.90	1.02		0.86	1.03		1.04 0.97
Usually obeys	-1			19.0			20.3			15.1		
Sometimes obeys	1			52.9			53.5			51.0		
Disobeys	2			28.2			26.3			33.9		
Consistent appropriate consequences for bad behavior	X		-1	2		0.30	1.45		0.25	1.44		0.44 1.45
Consistent: appropriate	-1			54.6			56.3			49.6		
Consistent: severe or insufficient	1			6.1			5.7			7.2		
Inconsistent	2			39.3			38.0			43.2		
Consistent appropriate reward for good behavior	X		-1	2		0.45	1.27		0.42	1.27		0.55 1.26
Consistent: appropriate	-1			41.2			42.4			37.5		
Consistent: insufficient or indulgent	1			31.6			31.3			32.5		
Inconsistent	2			27.2			26.3			30.0		
Parental characterization of youth's anti-social behavior	X		-1	3		-0.50	0.92		-0.50	0.92		-0.50 0.93
Disapproves	-1			76.4			76.3			76.7		
Minimizes	1			20.8			21.1			20.0		
Accepts	2			2.6			2.5			3.1		
Proud of	3			0.2			0.2			0.3		
ALCOHOL & DRUG HISTORY												
History of alcohol use (overall)			-2	2		0.17	1.39		0.11	1.41		0.34 1.33
No history	-2			22.7			24.4			17.5		
History	0			37.7			37.9			37.3		
Disrupted education, caused family conflict interfered with prosocial friends, or caused health problems	1			17.3			16.1			21.1		
Contributed to criminal behavior	2			22.3			21.7			24.1		
No past alcohol use			0	1		0.23	0.42		0.24	0.43		0.18 0.38
Use	0			77.3			75.5			82.5		
No use	0			22.7			24.5			17.5		
Past alcohol use			0	1		0.77	0.42		0.76	0.43		0.82 0.38
No	0			22.7			24.4			17.6		
Yes	1			77.3			75.6			82.4		
Disrupted education			0	1		0.22	0.41		0.21	0.40		0.26 0.44
No	0			78.1			79.3			74.4		
Yes	1			21.9			20.7			25.6		
Caused family conflict			0	1		0.27	0.45		0.26	0.44		0.32 0.47
No	0			72.7			74.4			67.7		
Yes	1			27.3			25.6			32.3		
Interfered with pro-social friends			0	1		0.24	0.43		0.23	0.42		0.28 0.45
No	0			76.0			77.4			71.6		
Yes	1			24.0			22.6			28.4		

Caused poor health	0	1	0.04	0.20	0.04	0.19	0.06	0.24
No	0		95.6		96.2		93.8	
Yes	1		4.4		3.8		6.2	
Contributed to criminal behavior	0	1	0.22	0.42	0.22	0.41	0.24	0.43
No	0		77.7		78.3		75.9	
Yes	1		22.3		21.7		24.1	
Alcohol tolerance	0	1	0.03	0.18	0.03	0.17	0.05	0.21
No	0		96.5		96.9		95.4	
Yes	1		3.5		3.1		4.6	
Alcohol withdrawal	0	1	0.01	0.11	0.01	0.10	0.02	0.13
No	0		98.7		98.9		98.2	
Yes	1		1.3		1.1		1.8	
History of drug use (overall)	-2	4	1.51	2.07	1.49	2.10	1.57	1.98
No history	-2		19.3		20.1		16.9	
History	1		29.4		29.2		29.9	
Disrupted education, caused family conflict interfered with prosocial friends, or caused health problems	2		22.7		21.7		25.6	
Contributed to criminal behavior	4		28.6		29.0		27.5	
No past drug use	0	1	0.19	0.40	0.20	0.40	0.17	0.38
Use	0		80.6		79.8		83.0	
No use	1		19.4		20.2		17.0	
Past drug use	0	1	0.81	0.39	0.80	0.40	0.83	0.38
No	0		19.3		20.1		17.0	
Yes	1		80.7		79.9		83.0	
Disrupted education	0	1	0.36	0.48	0.36	0.48	0.37	0.48
No	0		63.7		64.0		62.7	
Yes	1		36.3		36.0		37.3	
Caused family conflict	0	1	0.37	0.48	0.36	0.48	0.40	0.49
No	0		62.8		63.8		59.8	
Yes	1		37.2		36.2		40.2	
Interfered with pro-social friends	0	1	0.34	0.47	0.33	0.47	0.37	0.48
No	0		65.9		66.9		63.0	
Yes	1		34.1		33.1		37.0	
Caused health problems	0	1	0.06	0.23	0.05	0.21	0.08	0.27
No	0		94.5		95.3		92.0	
Yes	1		5.5		4.7		8.0	
Contributed to criminal behavior	0	1	0.29	0.45	0.29	0.45	0.28	0.45
No	0		71.4		71.0		72.5	
Yes	1		28.6		29.0		27.5	
Drug tolerance	0	1	0.07	0.26	0.07	0.25	0.09	0.28
No	0		92.7		93.1		91.4	
Yes	1		7.3		6.9		8.6	
Drug withdrawal	0	1	0.03	0.17	0.03	0.16	0.04	0.20
No	0		97.0		97.3		95.9	

Yes	1			3.0			2.7			4.1		
History of referrals for drug/alcohol assessment		0	3		0.98	1.24		0.96	1.23		1.03	1.26
No problem or never referred	0			57.2			57.7			55.7		
Referred but not assessed	1			8.3			8.3			8.3		
Diagnosed as abuse	2			13.8			13.9			13.5		
Diagnosed as dependent	3			20.7			20.1			22.5		
History of attending alcohol/drug education classes		-3	0		-0.45	0.79		-0.45	0.79		-0.46	0.80
Voluntarily attended	-3			2.9			2.8			3.0		
Attended at request	-2			10.6			10.6			10.6		
Attended at court direction	-1			15.3			15.2			15.7		
Never attended	0			71.2			71.4			70.7		
History of participating in alcohol/drug treatment program		-1	0		-0.26	0.44		-0.26	0.44		-0.27	0.45
Participated	-1			26.3			25.9			27.3		
Has not participated	0			73.7			74.1			72.7		
Youth using alcohol/drugs	X	-3	1		-0.11	1.79		-0.11	1.79		-0.09	1.78
No	-3			27.7			27.8			27.3		
Yes	1			72.3			72.2			72.7		
CURRENT ALCOHOL & DRUGS												
Alcohol use (overall)	X	0	3		1.21	1.19		1.19	1.20		1.28	1.17
Not using	0			39.4			40.7			35.6		
Not disrupting functioning	1			23.1			22.7			24.0		
Disrupting education, causes family conflict interferes with keeping prosocial friends, or causes health problems	2			14.5			13.5			17.4		
Contributes to criminal behavior	3			23.0			23.1			22.9		
No current alcohol use		0	1		0.30	0.44		0.31	0.46		0.27	0.45
Yes	0			70.3			69.5			72.8		
No	1			29.7			30.5			27.2		
Not disrupting functioning		0	1		0.44	0.50		0.43	0.49		0.47	0.50
No	0			56.2			57.2			53.2		
Yes	1			43.8			42.8			46.8		
Disrupts education		0	1		0.14	0.35		0.14	0.34		0.16	0.37
No	0			85.7			86.3			84.0		
Yes	1			14.3			13.7			16.0		
Causes family conflict		0	1		0.19	0.39		0.18	0.39		0.22	0.41
No	0			80.9			81.8			78.2		
Yes	1			19.1			18.2			21.8		
Interferes with prosocial friends		0	1		0.17	0.37		0.16	0.37		0.19	0.39
No	0			83.1			83.8			80.8		
Yes	1			16.9			16.2			19.2		
Causes health problems		0	1		0.03	0.18		0.03	0.17		0.04	0.20
No	0			96.8			97.1			95.7		
Yes	1			3.2			2.9			4.3		

[illegible]

Marijuana		0	1		0.58	0.49		0.58	0.49		0.55	0.50
No		0		42.4				41.6			44.6	
Yes		1		57.6				58.4			55.4	
Amphetamines		0	1		0.09	0.29		0.08	0.27		0.15	0.36
No		0		90.5				92.4			85.1	
Yes		1		9.5				7.6			14.9	
Cocaine		0	1		0.05	0.22		0.05	0.21		0.07	0.25
No		0		94.9				95.4			93.3	
Yes		1		5.1				4.6			6.7	
Heroin		0	1		0.02	0.13		0.01	0.12		0.03	0.17
No		0		98.2				98.6			96.9	
Yes		1		1.8				1.4			3.1	
Other drug		0	1		0.09	0.29		0.08	0.28		0.11	0.31
No		0		91.0				91.5			89.3	
Yes		1		9.0				8.5			10.7	
Alcohol/drug treatment program participation	X	-2	1		0.34	0.84		0.35	0.83		0.31	0.84
Successfully completed		-2		2.2				2.1			2.4	
Currently attending		-1		17.1				16.9			17.9	
Treatment not warranted		0		25.4				25.1			26.5	
Needs treatment, not attending		1		55.3				55.9			53.3	
MENTAL HEALTH HISTORY												
History of suicidal ideation												
No thoughts of suicide		0	1		0.74	0.44		0.79	0.41		0.59	0.49
Yes		0		26.4				21.4			41.1	
No		1		73.6				78.6			58.9	
Serious thoughts of suicide		0	1		0.17	0.38		0.15	0.35		0.26	0.44
No		0		82.6				85.4			74.2	
Yes		1		17.4				14.6			25.8	
Has made a plan		0	1		0.03	0.17		0.02	0.15		0.05	0.21
No		0		97.0				97.7			95.2	
Yes		1		3.0				2.3			4.8	
Has attempted		0	1		0.07	0.25		0.05	0.21		0.13	0.34
No		0		93.1				95.3			86.6	
Yes		1		6.9				4.7			13.4	
Hopeless		0	1		0.04	0.19		0.03	0.17		0.06	0.24
No		0		96.2				96.9			94.0	
Yes		1		3.8				3.1			6.0	
Self-mutilating		0	1		0.04	0.19		0.02	0.15		0.09	0.28
No		0		96.2				97.8			91.3	
Yes		1		3.8				2.2			8.7	
History of physical abuse (overall)		-1	1		-0.36	0.93		-0.43	0.91		-0.17	0.98
No		-1		68.1				71.3			58.7	
Yes		1		31.9				28.7			41.3	
Not a victim of physical abuse		0	1		0.69	0.46		0.72	0.45		0.59	0.49
Yes		0		31.3				28.2			40.6	
No		1		68.7				71.8			59.4	
Physical abuse: family member		0	1		0.22	0.42		0.20	0.40		0.28	0.45

No	0			77.8			79.6			72.2	
Yes	1			22.2			20.4			27.8	
Physical abuse: in the home		0	1		0.09	0.29		0.08	0.27		0.12 0.32
No	0			91.0			92.0			88.1	
Yes	1			9.0			8.0			11.9	
Physical abuse: someone outside the family			0 1		0.08	0.28		0.07	0.25		0.13 0.34
No	0			91.7			93.3			86.8	
Yes	1			8.3			6.7			13.2	
Physical abuse: foster home			0 1		0.01	0.07		0.00	0.07		0.01 0.08
No	0			99.5			99.5			99.3	
Yes	1			0.5			0.5			0.7	
Physical abuse: with a weapon			0 1		0.01	0.10		0.01	0.10		0.01 0.10
No	0			99.0			98.9			99.0	
Yes	1			1.0			1.1			1.0	
Has not witnessed violence			0 1		0.10	0.31		0.11	0.31		0.09 0.29
Yes	0			89.5			89.0			91.0	
No	1			10.5			11.0			9.0	
Witnessed violence in the home			0 1		0.19	0.39		0.17	0.38		0.23 0.42
No	0			81.2			82.7			76.6	
Yes	1			18.8			17.3			23.4	
Witnessed violence in foster home			0 1		0.01	0.10		0.01	0.10		0.02 0.12
No	0			98.9			99.1			98.5	
Yes	1			1.1			0.9			1.5	
Witnessed violence in the community			0 1		0.20	0.40		0.19	0.39		0.22 0.41
No	0			80.2			80.8			78.5	
Yes	1			19.8			19.2			21.5	
Witnessed murder			0 1		0.01	0.08		0.01	0.08		0.01 0.08
No	0			99.3			99.3			99.4	
Yes	1			0.7			0.7			0.6	
History of sexual abuse (overall)			-1 1		-0.71	0.71		-0.84	0.54		-0.31 0.95
No	-1			85.4			92.0			65.6	
Yes	1			14.6			8.0			34.4	
Not a victim of sexual abuse			0 1		0.86	0.35		0.92	0.27		0.66 0.47
Yes	0			14.4			7.9			33.9	
No	1			85.6			92.1			66.1	
Sexual abuse: family member			0 1		0.07	0.25		0.04	0.20		0.14 0.35
No	0			93.4			95.9			86.1	
Yes	1			6.6			4.1			13.9	
Sexual abuse: someone outside the family			0 1		0.09	0.29		0.04	0.20		0.24 0.43
No	0			90.7			95.7			76.1	
Yes	1			9.3			4.3			23.9	
History of being a victim of neglect			-1 1		-0.48	0.88		-0.52	0.85		-0.36 0.93
No	-1			74.1			76.2			67.8	
Yes	1			25.9			23.8			32.2	
History of ADD/ADHD			-1 2		-0.32	1.06		-0.25	1.09		-0.56 0.92
No	-1			69.9			66.4			80.4	
Medication or treatment	1			22.7			25.4			14.4	

prescribed											
Medication and treatment prescribed	2			7.5			8.2			5.2	
History of mental health problems		-1	2		-0.25	1.16		-0.32	1.12		-0.06 1.23
No	-1			69.4			72.0			61.6	
Medication or treatment prescribed	1			17.3			15.9			21.5	
Medication and treatment prescribed	2			13.3			12.1			16.9	
Health insurance	X		-1	1		-0.88	0.47		-0.87	0.49	
Yes	-1			94.1			93.7			95.1	
No	1			5.9			6.3			4.9	
Current mental health problem status	X		-1	1		-0.40	0.92		-0.45	0.90	
No	-1			70.1			72.3			63.5	
Yes	1			29.9			27.7			36.5	
Anger		0	3		1.49	0.96		1.45	0.96		1.60 0.94
No history	0			12.8			14.0			9.5	
Occasional feelings	1			45.6			46.4			43.4	
Consistent feelings	2			21.2			20.0			24.6	
Aggressive reactions	3			20.4			19.6			22.5	
Depression		0	3		1.02	0.83		0.93	0.81		1.27 0.84
No history	0			28.7			32.6			18.0	
Occasional feelings	1			44.9			45.1			44.4	
Consistent feelings	2			21.7			18.6			30.4	
Impairment in daily tasks	3			4.6			3.7			7.2	
Somatic complaints		0	3		0.32	0.64		0.28	0.61		0.43 0.71
No history	0			75.4			78.4			66.9	
One or two	1			19.4			17.0			26.2	
Three or four	2			3.0			2.6			4.1	
Five or more	3			2.2			2.0			2.8	
Delusions/hallucinations		0	1		0.05	0.21		0.04	0.20		0.05 0.22
No	0			95.5			95.7			95.0	
Yes	1			4.5			4.3			5.0	
Trauma		0	1		0.39	0.49		0.34	0.48		0.52 0.50
No	0			60.9			65.6			48.0	
Yes	1			39.1			34.4			52.0	
CURRENT MENTAL HEALTH											
Current suicide ideation	X										
No recent thoughts		0	1		0.23	0.42		0.19	0.40		0.31 0.46
No	-1			77.2			80.6			69.1	
Yes	0			22.8			19.4			30.9	
Recent plan		0	1		0.01	0.09		0.01	0.08		0.01 0.12
No	0			99.2			99.4			98.6	
Yes	1			0.8			0.6			1.4	
Recent attempt		0	1		0.01	0.11		0.01	0.09		0.03 0.16
No	0			98.7			99.1			97.4	
Yes	1			1.3			0.9			2.6	
Hopeless		0	1		0.01	0.10		0.01	0.09		0.02 0.12
No	0			99.1			99.3			98.5	

Yes	1			0.9			0.7			1.5		
Self-mutilation		0	1		0.01	0.11		0.01	0.08		0.03	0.16
No	0			98.9			99.4			97.4		
Yes	1			1.1			0.6			2.6		
Currently diagnosed with ADD/ADHD	X	-1	1		-0.09	0.61		-0.11	0.66		-0.04	0.48
Compliant with medication		-1		23.7			28.1			13.7		
No problem or no medication		0		61.6			54.9			76.7		
Non-compliant with medication		1		14.8			17.0			9.6		
Mental health treatment currently prescribed, excluding ADD/ADHD treatment	X	-1	1		-0.21	0.75		-0.22	0.73		-0.20	0.80
Attending treatment		-1		41.4			40.1			44.1		
No treatment need		0		38.6			41.5			32.0		
Non-compliant with treatment		1		20.0			18.4			23.8		
Mental health medication currently prescribed, excluding ADD/ADHD medication	X	-1	1		-0.21	0.67		-0.23	0.66		-0.18	0.70
Compliant with medication		-1		35.4			35.6			35.0		
No medication need		0		50.1			51.2			47.6		
Non-compliant with medication		1		14.4			13.1			17.4		
Mental health problems currently interfere with working with the youth	X	0	1		0.32	0.47		0.33	0.47		0.31	0.46
No problem or mental health does not interfere		0		67.9			67.2			69.5		
Yes		1		32.1			32.8			30.5		
ATTITUDES/BEHAVIORS												
Primary emotion when committing last crime(s) within last 6 months	X	-1	1		0.64	0.77		0.65	0.76		0.61	0.79
Nervous, afraid, worried, uncertain		-1		18.0			17.6			19.3		
Hyper, excited, stimulated, confident, or unconcerned		1		82.0			82.4			80.7		
Primary purpose for committing crime(s) within last 6 months	X											
Anger/revenge		0	1		0.26	0.44		0.23	0.42		0.33	0.47
No		0		84.2			76.6			66.9		
Yes		1		15.8			23.4			33.1		
Power		0	1		0.01	0.10		0.00	0.06		0.01	0.11
No		0		98.9			99.0			98.7		
Yes		1		1.1			1.0			1.3		
Impulse		0	1		0.19	0.39		0.19	0.39		0.18	0.39
No		0		81.0			80.8			81.6		
Yes		1		19.0			19.2			18.4		
Sexual desire		0	1		0.03	0.17		0.04	0.19		0.00	0.06
No		0		97.0			96.1			99.6		
Yes		1		3.0			3.9			0.4		
Money, material gain, or drugs		0	1		0.19	0.39		0.19	0.39		0.17	0.38
No		0		81.2			80.7			82.6		

Yes	1			18.8			19.3			17.4		
Excitement, amusement		0	1		0.15	0.36		0.16	0.37		0.13	0.34
No	0			84.7			84.0			86.7		
Yes	1			15.3			16.0			13.3		
Status, acceptance, attention		0	1		0.16	0.37		0.16	0.37		0.15	0.35
No	0			84.2			83.8			85.3		
Yes	1			15.8			16.2			14.7		
Optimism	X	-2	2		-0.30	1.06		-0.28	1.06		-0.34	1.07
High aspirations		-2		5.7			5.1			7.4		
Normal aspirations		-1		57.1			57.2			56.8		
Low aspirations		1		35.7			36.2			34.4		
Believes nothing matters		2		1.5			1.5			1.4		
Impulsive; acts before thinking	X	-2	2		0.29	1.27		0.30	1.27		0.28	1.27
Uses self-control		-2		4.8			4.6			5.3		
Some self-control		-1		37.4			37.4			37.2		
Impulsive		1		39.5			39.5			39.6		
Highly impulsive		2		18.4			18.5			17.9		
Belief in control over anti-social behavior	X	-2	2		0.18	1.44		0.18	1.44		0.19	1.45
Believes		-2		29.7			29.7			29.8		
Somewhat believes		1		62.6			62.8			62.2		
Does not believe		2		7.6			7.5			8.0		
Empathy, remorse, sympathy, or feelings for victim(s) of criminal behavior	X	-2	2		-0.15	1.59		-0.14	1.59		-0.16	1.59
Empathy		-2		17.5			17.3			18.0		
Some empathy		-1		48.2			48.3			47.9		
No empathy		2		34.3			34.3			34.1		
Respect for property of others	X	-2	3		0.80	1.77		0.85	1.76		0.65	1.80
Respects		-2		25.9			24.8			29.1		
Respects personal, not public		1		30.1			30.0			30.4		
Conditional respect for personal		2		30.4			30.9			28.9		
No respect		3		13.6			14.3			11.6		
Respect for authority figures	X	-2	3		0.01	1.81		0.02	1.82		-0.02	1.80
Respects		-2		42.7			42.6			43.1		
Does not respect		1		35.3			35.1			36.1		
Resents		2		15.1			15.4			14.3		
Defies or is hostile		3		6.8			6.9			6.5		
Attitude toward pro-social rules/conventions in society	X	-2	3		0.73	1.41		0.74	1.41		0.69	1.41
Abides		-2		18.4			18.3			18.9		
Believes rules sometimes apply		1		59.5			59.2			60.5		
Does not believe rules apply		2		16.1			16.5			15.0		
Resents rules		3		5.9			6.0			5.6		
Accepts responsibility for anti-social behavior	X	-2	3		0.34	1.60		0.33	1.61		0.36	1.60
Accepts responsibility		-2		29.9			30.1			29.4		
Minimizes antisocial behavior		1		50.3			50.3			50.5		
Accepts antisocial behavior		2		15.8			15.6			16.3		

Proud of antisocial behavior		3			4.0		4.0		3.9		
Youth's belief in successfully meeting conditions of court supervision	X		-1	2		0.06	1.07		0.06	1.07	0.04 1.06
Believes		-1			49.5		49.3		49.9		
Unsure		1			46.0		46.0		45.8		
Does not believe		2			4.6		4.7		4.3		
AGGRESSION											
Tolerance for frustration	X		-2	2		0.78	1.32		0.71	1.35	0.98 1.21
Rarely upset		-2			16.8		18.4		12.3		
Sometimes upset		1			54.7		55.3		52.9		
Often upset		2			28.5		26.4		34.9		
Hostile interpretation of actions & intentions of others	X		-2	2		-0.19	1.59		-0.22	1.59	-0.12 1.58
Positive view		-2			42.9		43.6		40.6		
Negative view		1			47.8		47.3		49.5		
Hostile view		2			9.3		9.1		10.0		
Belief in yelling & verbal aggression to resolve a disagreement or conflict	X		-2	2		0.68	1.36		0.62	1.39	0.87 1.28
Rarely appropriate		-2			19.0		20.4		14.8		
Sometimes appropriate		1			55.9		56.5		54.0		
Often appropriate		2			25.1		23.1		31.1		
Belief in fighting & physical aggression to resolve a disagreement or conflict	X		-2	2		0.67	1.81		0.66	1.81	0.69 1.82
Never appropriate		-2			14.3		14.2		14.5		
Rarely appropriate		-1			29.4		29.7		28.7		
Sometimes appropriate		2			44.4		44.4		44.3		
Often appropriate		3			11.9		11.7		12.5		
Reports/evidence of violence not included in criminal history	X										
No reports			0	1		0.45	0.50		0.46	0.50	0.43 0.49
Yes		0			54.7		53.8		57.1		
No		1			45.3		46.2		42.9		
Violent destruction of property			0	1		0.15	0.36		0.15	0.36	0.15 0.36
No		0			84.7		84.6		85.1		
Yes		1			15.3		15.4		14.9		
Violent outbursts, displays of temper, uncontrolled anger indicating potential for harm			0	1		0.50	0.50		0.49	0.50	0.54 0.50
No		0			49.6		50.9		45.7		
Yes		1			50.4		49.1		54.3		
Deliberately inflicted physical pain			0	1		0.17	0.37		0.16	0.37	0.18 0.39
No		0			83.5		84.0		81.9		
Yes		1			16.5		16.0		18.1		
Used/threatened with a weapon			0	1		0.08	0.26		0.08	0.27	0.05 0.23
No		0			92.5		91.8		94.6		
Yes		1			7.5		8.2		5.4		
Fire starting reports			0	1		0.04	0.20		0.05	0.21	0.02 0.15
No		0			95.9		95.3		97.8		

Yes	1			4.1			4.7		2.2		
Animal cruelty reports		0	1		0.01	0.12		0.02	0.12	0.01	0.10
No	0			98.6			98.4		99.1		
Yes	1			1.4			1.6		0.9		
Reports/evidence of sexual aggression not included in criminal history	X										
No reports of sexual aggression outside of criminal history		0	1		0.97	0.18		0.96	0.19	0.98	0.13
Yes	0			3.3			3.9		1.6		
No	1			96.7			96.1		98.4		
Reports of aggressive sex		0	1		0.01	0.10		0.01	0.11	0.01	0.07
No	0			99.0			98.9		99.5		
Yes	1			1.0			1.1		0.5		
Reports of sex for power		0	1		0.00	0.06		0.00	0.06	0.00	0.06
No	0			99.6			99.6		99.6		
Yes	1			0.4			0.4		0.4		
Reports of young sex partners		0	1		0.01	0.10		0.01	0.11	0.00	0.05
No	0			99.0			98.7		99.7		
Yes	1			1.0			1.3		0.3		
Reports of child sex		0	1		0.01	0.10		0.01	0.11	0.00	0.05
No	0			99.0			98.8		99.8		
Yes	1			1.0			1.2		0.2		
Reports of voyeurism		0	1		0.00	0.06		0.00	0.06	0.00	0.04
No	0			99.7			99.6		99.9		
Yes	1			0.3			0.4		0.1		
Reports of exposure		0	1		0.01	0.09		0.01	0.10	0.01	0.08
No	0			99.1			99.1		99.4		
Yes	1			0.9			0.9		0.6		
SKILLS											
Consequential thinking	X	-3	1		-0.99	0.89		-0.98	0.89	-1.03	0.89
Acts to obtain desired consequences		-3		3.3			3.2		3.8		
Identifies consequences of actions		-2		17.0			16.7		18.1		
Understands there are consequences to actions		-1		67.5			67.8		66.6		
Does not understand		1		12.1			12.3		11.5		
Goal-setting	X	-2	2		0.09	1.44		0.13	1.45	-0.01	1.43
Realistic goals		-2		8.5			8.0		10.1		
Somewhat realistic goals		-1		46.6			46.2		47.8		
Unrealistic goals		1		17.0			16.9		17.2		
No goals		2		28.0			29.0		24.8		
Problem-solving	X	-3	1		-0.60	1.13		-0.58	1.13	-0.64	1.13
Applies appropriate solutions		-3		2.5			2.4		2.8		
Thinks of solutions		-2		14.5			14.0		15.8		
Identifies problem behaviors		-1		53.1			53.2		52.8		
Cannot identify		1		29.9			30.4		28.5		
Situational perception	X	-3	1		-0.59	1.22		-0.57	1.22	-0.65	1.22
Selects best time and place		-3		4.2			4.0		4.6		
Chooses skill but not time/place		-2		16.7			16.3		18.0		

Analyzes but unable to choose skill		-1			46.2		46.1		46.5		
Cannot analyze					32.9		33.6		31.0		
Dealing with others	X		-3	1		-0.79	1.08		-0.77	1.08	-0.86 1.08
Often uses advanced skills		-3			2.6		2.4		3.2		
Sometimes uses advanced skills		-2			19.2		18.5		2.4		
Has basic skills, not advanced		-1			55.5		55.9		54.5		
Lacks basic skills		1			22.6		23.2		20.9		
Dealing with difficult situations	X		-2	2		0.65	1.32		0.66	1.31	0.62 1.33
Often uses skills		-2			2.3		2.3		2.5		
Sometimes uses skills		-1			32.1		31.7		33.3		
Rarely uses skills		1			28.9		29.3		27.7		
Lacks skills		2			36.6		36.7		36.4		
Dealing with feelings/emotions	X		-2	2		0.73	1.29		0.74	1.29	0.68 1.31
Often uses skills		-2			2.1		2.1		2.4		
Sometimes uses skills		-1			29.5		29.0		31.0		
Rarely uses skills		1			30.5		30.9		29.2		
Lacks skills		2			37.9		38.1		37.4		
Monitoring of internal triggers	X		-2	2		0.64	1.53		0.65	1.53	0.60 1.54
Actively monitors		-2			3.1		3.0		3.4		
Identifies		-1			41.3		40.9		42.3		
Cannot identify		2			55.6		56.1		54.4		
Monitoring of external triggers	X		-2	2		0.14	1.51		0.15	1.51	0.11 1.51
Actively monitors		-2			4.1		4.0		4.3		
Identifies		-1			56.6		56.5		57.2		
Cannot identify		2			39.3		39.5		38.5		
Control of impulsive behaviors	X		-3	2		0.78	1.66		0.78	1.66	0.76 1.66
No problem		-3			4.7		4.7		4.5		
Uses techniques		-2			3.0		3.0		3.2		
Knows techniques		-1			29.0		28.9		29.5		
Lacks techniques		2			63.3		63.4		62.9		
Control of aggression	X		-3	2		0.05	1.78		0.03	1.79	0.11 1.78
No problem		-3			10.5		10.7		9.8		
Often uses alternatives		-2			9.5		9.7		9.0		
Sometimes uses alternatives		-1			30.0		30.1		29.8		
Rarely uses alternatives		1			14.4		14.5		14.3		
Lacks alternatives		2			35.6		35.1		37.2		

Appendix III. Principal Component Analysis (PCA) Detailed findings

Principal Component Analysis (PCA) was utilized to identify item groupings within each domain of the PACT for the prediction models. Table 1 provides the model fit information for the PCA models for each domain. Tables 2 through 12 illustrate the results of the PCA for each domain by providing the components extracted with the items that substantially loaded (loadings values of at least 0.600) onto them.

Table 1 – Components Extracted, Items Loaded, and Percent Variance Explained by Domain

Domain	Number of Components Extracted	Number of Items Per Component	Percent Variance Explained
Criminal History	4	--	52%
<i>Component 1</i>		2	18
<i>Component 2</i>		2	15
<i>Component 3</i>		2	10
<i>Component 4</i>		1	8
School	2	--	65%
<i>Component 1</i>		2	51
<i>Component 2</i>		10	14
Use of Free Time	1	--	51%
<i>Component 1</i>		4	51
Employment	3	--	69%
<i>Component 1</i>		5	39
<i>Component 2</i>		2	19
<i>Component 3</i>		1	12
Relationships	2	--	56%
<i>Component 1</i>		4	36
<i>Component 2</i>		3	20
Family	20	--	63%
<i>Component 1</i>		5	10
<i>Component 2</i>		3	8
<i>Component 3</i>		3	5
<i>Component 4</i>		3	4
<i>Component 5</i>		2	4

<i>Component 6</i>		3	3
<i>Component 7</i>		3	3
<i>Component 8</i>		2	3
<i>Component 9</i>		2	3
<i>Component 10</i>		1	2
<i>Component 11</i>		1	2
<i>Component 12</i>		1	2
<i>Component 13</i>		2	2
<i>Component 14</i>		2	2
<i>Component 15</i>		1	2
<i>Component 16</i>		2	2
<i>Component 17</i>		1	2
<i>Component 18</i>		2	2
<i>Component 19</i>		1	2
<i>Component 20</i>		1	2
Alcohol and Drugs	8	--	63%
<i>Component 1</i>		6	26
<i>Component 2</i>		4	9
<i>Component 3</i>		4	6
<i>Component 4</i>		4	6
<i>Component 5</i>		4	5
<i>Component 6</i>		3	4
<i>Component 7</i>		4	4
<i>Component 8</i>		2	3
Mental Health	12	--	61%
<i>Component 1</i>		5	16
<i>Component 2</i>		6	8
<i>Component 3</i>		2	6
<i>Component 4</i>		2	5
<i>Component 5</i>		2	4

<i>Component 6</i>		2	4
<i>Component 7</i>		1	3
<i>Component 8</i>		2	3
<i>Component 9</i>		2	3
<i>Component 10</i>		2	3
<i>Component 11</i>		1	3
<i>Component 12</i>		1	
Attitudes and Behaviors	11	--	78%
<i>Component 1</i>		6	21
<i>Component 2</i>		2	9
<i>Component 3</i>		2	7
<i>Component 4</i>		2	6
<i>Component 5</i>		1	6
<i>Component 6</i>		1	5
<i>Component 7</i>		1	5
<i>Component 8</i>		2	5
<i>Component 9</i>		2	5
<i>Component 10</i>		1	5
<i>Component 11</i>		1	4
Aggression	5	--	53%
<i>Component 1</i>		4	20
<i>Component 2</i>		3	11
<i>Component 3</i>		2	9
<i>Component 4</i>		2	7
<i>Component 5</i>		2	6
Skills	1	--	54%
<i>Component 1</i>		8	54

Table 2 – Criminal History Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Felony sex referrals	Misdemeanor referrals	Confined detention orders	Weapon referrals

Against person felony referrals	Against person misdemeanor referrals	Failure-to-appear in court warrants	
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Table 3 – School Domain

<i>Component 1</i>	<i>Component 2</i>
History of expulsion	Current school enrollment
Age of first expulsion	Currently believes school is worthwhile
	Currently believes school is encouraging
	Currently involved in school activities
	Youth's conduct in recent term
	Number of current expulsions
	Youth's attendance in recent term
	Youth's academic performance in recent term
	Assessor's belief youth will graduate

Table 4 – Use of Free Time Domain

<i>Component 1</i>
Historical involvement in at least one structured pro-social activity
Historical involvement in at least one unstructured pro-social activity
Current involvement in at least one structured pro-social activity
Current involvement in at least one unstructured pro-social activity

Table 5 – Employment Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>
No history of employment problems	History of employment	History of problems at work
History of at least one positive adult relationships at work	Interest in employment	
Current employment status		
Understanding what it takes to be successfully employed		
Current positive adult relationships at work		

Table 6 – Relationships Domain

<i>Component 1</i>	<i>Component 2</i>
History of anti-social friends	History of positive adult non-family relationships not connected to school or employment
Current friends youth spends time with	Current positive adult non-family relationships not connected to school or employment
Youth admires anti-social friends	Current pro-social ties
Youth resists anti-social friends	

Table 7 – Family Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Support network for family	History of family members in jail	Mom currently in jail	Youth feels close to no family members
Family provides opportunities for youth to participate in activities and decisions affecting the youth	Currently have family members in jail	Parent problem with alcohol	Youth feels close to family members
Parental supervision		Parent problem with drugs	
Consistent, appropriate punishment for bad behavior			
Consistent, appropriate rewards for behavior			
<i>Component 5</i>	<i>Component 6</i>	<i>Component 7</i>	<i>Component 8</i>
History of siblings in jail	History of out-of-home placement for youth	No parent problems	Living with siblings
Currently have siblings in jail	History of petitions filed	Parent problem with mental health	No sibling problems
		Parent problem with physical health	
<i>Component 9</i>	<i>Component 10</i>	<i>Component 11</i>	<i>Component 12</i>
History of running away or being kicked out	Living with biological dad	Living with grandparents	Youth has been living under adult supervision
Youth has runaway or been kicked out			
<i>Component 13</i>	<i>Component 14</i>	<i>Component 15</i>	<i>Component 16</i>
History of extended family members in jail	Sibling problem with mental health	Living with non-biological mom	Living with short-term partner
Currently have extended family members in jail	Sibling problem with physical health		Living with romantic partner
<i>Component 17</i>	<i>Component 18</i>	<i>Component 19</i>	<i>Component 20</i>
Living transient	Living with family friends	Living with long-term partner	Living alone
	Living with parent's roommate		

Table 8 – Alcohol and Drugs Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Alcohol has disrupted education	Alcohol currently disrupted education	Currently using alcohol and/or drugs	Current drug use is to get high
Alcohol has caused family conflict	Alcohol currently causes family conflict	Drugs currently disrupt education	Current drug use has led youth to be withdrawn
Alcohol has interfered with keeping pro-social friends	Alcohol currently interferes with keeping pro-social friends	Drugs currently causes family conflict	Past drug use was to get high

Drugs have disrupted education	Alcohol currently contributes to criminal behavior	Drug choice – marijuana	Past drug use has led youth to be withdrawn
Drugs have caused family conflict			
Drugs have interfered with keeping pro-social friends			
<i>Component 5</i>	<i>Component 6</i>	<i>Component 7</i>	<i>Component 8</i>
Past alcohol use was to get high	History of alcohol and/or drug treatment referrals	Alcohol has caused health problems	Drug choice – amphetamines
Past alcohol use has led youth to be withdrawn	History of alcohol and/or drug education classes	Drug use has caused health problems	Drug choice – cocaine
Current alcohol use is to get high	History of participation in alcohol and/or drug treatment	Current alcohol has caused health problems	
Current alcohol use has led youth to be withdrawn		Current drug use has caused health problems	

Table 9 – Mental Health Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Witness violence at home	History of ADHD medication/treatment	History of sexual abuse by family	History of suicidal ideation
History of anger	Currently has mental health problem	History of sexual abuse by others	Current thoughts of suicide
History of intensive anger	Currently has ADHD medication/treatment		
History of depression	Currently has mental health treatment, not relating to ADHD		
History of trauma	Currently prescribed mental health medication, not relating to ADHD		
	Current mental health problems interfere with working with youth		
<i>Component 5</i>	<i>Component 6</i>	<i>Component 7</i>	<i>Component 8</i>
History of somatic complaints	Experienced physical abuse in a foster home	History of physical abuse by family	Has previously made a suicide attempt
History of intensive somatic complaints	Witnessed physical abuse in a foster home		Has recently made a suicide attempt
Component 9	Component 10	Component 11	Component 12
History of physical by others	Has previously made a suicide plan	Has medical insurance	Currently suicide emotion of hopelessness
Experienced physical abuse with a weapon	Currently has a suicide plan		

Table 10 – Attitudes and Behaviors Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Level of optimism	Primary crime emotion – confidence	Accepts responsibility for anti-social behavior	Youth is law abiding
Impulsiveness	Primary crime emotion – excited	Minimizes responsibility for anti-social behavior	Youth is proud of anti-social behavior
Belief in controlling anti-social behavior			
Respect for authority			
Respect for other's property			
Youth's belief in successfully meeting condition of court supervision			
<i>Component 5</i>	<i>Component 6</i>	<i>Component 7</i>	<i>Component 8</i>
Believes anti-social behavior is acceptable	Primary crime emotion – indifference	Primary crime purpose – impulse	Primary crime purpose – money
			Primary crime purpose – peer status
<i>Component 9</i>	<i>Component 10</i>	<i>Component 11</i>	
Primary crime purpose – sex	Primary crime purpose – excitement	Primary crime purpose – power	
Primary crime purpose – anger			

Table 11 – Aggression Domain

<i>Component 1</i>	<i>Component 2</i>	<i>Component 3</i>	<i>Component 4</i>
Tolerance for frustration	Reports of violence – deliberately inflicting pain	Reports of sexual violence – aggressive sex	Reports of sexual violence – voyeurism
Hostile interpretation of action and intentions of others in a common, non-confrontational setting	Reports of violence – using/threatening with a weapon	Reports of sexual violence – sex for power	Reports of sexual violence – exposure
Belief in yelling/verbal aggression to resolve disagreement/conflict	Reports of violence – violent destruction of property		
Belief in fighting/physical aggression to resolve disagreement/conflict			
<i>Component 5</i>			
Reports of violence – fire starting			
Reports of violence – animal cruelty			

Table 12 – Skills Domain

<i>Component 1</i>
Consequential thinking
Goal setting
Problem-solving
Situational perception
Dealing with others
Dealing with situations
Dealing with emotions
Monitoring internal triggers

Male							Female					
		Any	Felony	Violent	Property	Drug	Any	Felony	Violent	Property	Drug	
Min	Max											
DOMAIN 1: CRIMINAL HISTORY												
0. Age at time of assessment												
17		4				4						
16		3				3						
15		2				2						
14		1				1						
13 or under		0				0						
1. Age at 1st Offense												
Over 16		0	0	0	0	0	0	0	0	0	0	
16		2	2	2	2	1	4	3	3	2	1	
15		4	4	4	4	2	8	6	6	4	2	
13 to 14		6	6	6	6	3	12	9	9	6	3	
Under 13		8	8	8	8	4	16	12	12	8	4	
2. Misdemeanor referrals												
None or one		0	0	0	0	0	0	0		0	0	
Two		1	2	1	1	1	1	2		1	1	
Three or four		2	4	2	2	2	2	4		2	2	
Five or more		3	6	3	3	3	3	6		3	3	
3. Felony referrals												
None		0	0	0	0	0	0	0	0	0	0	
One		2	4	2	2	2	2	4	1	2	2	
Two		4	8	4	4	4	4	8	2	4	4	
Three or more		6	12	6	6	6	6	12	3	6	6	
4. Weapon referrals												
None		0	0	0		0	0	0	0		0	
One or more		1	1	1		1	1	1	3		1	
5. Against-person misdemeanor referrals												
None				0					0			
One				2					3			
Two or more				4					6			
6. Against-person felony referrals												
None				0					0			
One or two				4					6			
Three or more				8					12			
9. Disposition orders where youth served at least one day confined in detention												
None		0	0	0	0	0	0	0	0	0		
One		3	2	1	1	1	3	1	1	1		
Two		6	4	2	2	2	6	2	2	2		
Three or more		9	6	3	3	3	9	3	3	3		
10. Disposition orders where youth served at least one day confined under JRA												
None		0	0	0	0	0	0	0	0	0		
One		6	4	2	2	2	6	2	2	2		
Two or more		9	8	4	4	4	12	4	4	4		
11. Escapes												
None		0	0	0	0	0	0	0	0	0	0	
One		1	2	1	1	1	1	1	1	1	1	
Two or more		2	4	2	2	2	2	2	2	2	2	
12. Failure-to-appear in court warrants												
None		0	0	0	0	0	0	0	0	0	0	
One		1	2	1	1	1	1	1	1	1	1	
Two or more		2	4	2	2	2	2	2	2	2	2	
DOMAIN 3: SCHOOL												

1h. Youth is a special education student or has a formal diagnosis of a special education need (select all that apply)										
No Special Education	1	1	1	1	1	1	1	1	1	1
Behavior	3	2	1			2	2	3	2	
ADHD	1	1	2		1	1	1	1		1
Learning	1				1	1		3		
2c. Youth's current school enrollment status, regardless of attendance										
Graduated/GED/full-time	-4	-2	-2	-4		-2	-2	-4	-2	
Enrolled part-time	-2	-1	-1	-2		-1	-1	-2	-1	
Suspended, dropped-out or expelled	6	3	3	6		3	3	6	3	
3h. Age at first expulsion or suspension										
No expulsions	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
5 to 9 years old	2	2	2	2	2	2	2	2	2	2
10 to 13 years old	2	2	2	2	2	2	2	2	2	2
14 to 15 years old	1	1	1	1	1	1	1	1	1	1
16 to 18 years old	1	1	1	1	1	1	1	1	1	1
EXPULSIONS & CONDUCT SCALE	-1	3								
2h. History of expulsions and suspensions since the first grade										
No expel/suspend	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
One expel/suspend	1	1	1	1	1	1	1	1	1	1
Two or more	2	2	2	2	2	2	2	2	2	2
8c. Number of expulsions and suspensions in the most recent term										
No expel/suspend	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
One expel/suspend	1	1	1	1	1	1	1	1	1	1
Two or three	2	2	2	2	2	2	2	2	2	2
Over three	3	3	3	3	3	3	3	3	3	3
7c. Youth's conduct in the most recent term										
Recognition for good school behavior	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2
No problems	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
School problems reported by teachers	1	1	1	1	1	1	1	1	1	1
School problem calls to parents	2	2	2	2	2	2	2	2	2	2
School problem calls to police	3	3	3	3	3	3	3	3	3	3
BELIEVE, ENCOURAGE, & STAFF SCALE	-4	4								
3c. Youth believes there is value in getting an education										
Believes	-1	-1		-1						-1
Somewhat believes	1	1		1						1
Does not believe	2	2		2						2
4c. Youth believes school provides an encouraging environment for him or her										
Believes	-1	-1		-1			-1			-1
Somewhat believes	1	1		1			1			1
Does not believe	2	2		2			2			2
5c. Teachers, staff, or coaches the youth likes or										

feels comfortable talking with									
None	0	0	0	0	0	0	0	0	0
One	-1	-1	-1	-1	-1	-1	-1	-1	-1
Two or more	-2	-2	-2	-2	-2	-2	-2	-2	-2
ASSESSMENT STAY, ATTENDANCE, ACADEMIC SCALE									
6c. Youth's involvement in school activities during most recent term									
Two or more	-2	-2	-2	-2	-2	-2	-2	-2	-2
One	-1	-1	-1	-1	-1	-1	-1	-1	-1
Not involved but interested	1	1	1	1	1	1	1	1	1
Not interested	2	2	2	2	2	2	2	2	2
9c. Youth's attendance in the most recent term									
Good attendance; few excused absences	-2	-2	-2	-2	-2	-2	-2	-2	-2
No unexcused absences	-1	-1	-1	-1	-1	-1	-1	-1	-1
Some partial-day unexcused absences	1	1	1	1	1	1	1	1	1
Some full-day unexcused absences	2	2	2	2	2	2	2	2	2
Truancy or withdrawn	3	3	3	3	3	3	3	3	3
10c. Youth's academic performance in the most recent school term									
Mostly As	-3	-3	-3	-3	-3	-3	-3	-3	-3
Mostly As and Bs	-2	-2	-2	-2	-2	-2	-2	-2	-2
Mostly Bs and Cs, no Fs	-1	-1	-1	-1	-1	-1	-1	-1	-1
Mostly Cs and Ds, some Fs	1	1	1	1	1	1	1	1	1
Some Ds and mostly Fs	2	2	2	2	2	2	2	2	2
11c. Interviewer's assessment of likelihood the youth will stay in and graduate from high school or an equivalent vocational school									
Very likely	-1	-1	-1	-1	-1	-1	-1	-1	-1
Uncertain	1	1	1	1	1	1	1	1	1
Not likely	2	2	2	2	2	2	2	2	2
DOMAIN 4: FREE TIME									
CURRENT STRUCTURED & UNSTRUCTURED ACTIVITIES SCALE									
Current interest and involvement in structured recreational activities									
Two or more	-3	-3	-3	-3	-3	-3	-3	-3	-3
One	-2	-2	-2	-2	-2	-2	-2	-2	-2
Interested but not involved	-1	-1	-1	-1	-1	-1	-1	-1	-1
Not interested	0	0	0	0	0	0	0	0	0
Current interest and involvement in unstructured recreational activities									
Two or more	-3	-3	-3	-3	-3	-3	-3	-3	-3
One	-2	-2	-2	-2	-2	-2	-2	-2	-2
Interested but not involved	-1	-1	-1	-1	-1	-1	-1	-1	-1
Not interested	0	0	0	0	0	0	0	0	0
DOMAIN 5: EMPLOYMENT									

[illegible]

One									-1
Two									-2
Three or more									-3
2h. Current positive adult non-family relationships not connected to school or employment									
None									0
One									-1
Two									-2
Three or more									-3
HISTORY & CURRENT RELATIONSHIPS WITH PROSOCIAL ONLY FRIENDS									
HISTORY & CURRENT RELATIONSHIPS WITH NONE/MIX OF PRO & ANTISOCIAL FRIENDS									
HISTORY & CURRENT RELATIONSHIPS WITH ANTISOCIAL ONLY FRIENDS									
HISTORY & CURRENT RELATIONSHIPS WITH GANG MEMBER FRIENDS									
2h. History of anti-social friends/companions (select all that apply)									
Only pro-social friends	-1					1			
Never had consistent friends or mix of pro-social and anti-social friends		1			1	1	1		1
Only anti-social friends				2			2	1	
Gang member/associate	3	3	3			3	3	3	3
2-3c. Current anti-social friends/companions									
Only pro-social friends	-1					1			
No consistent friends or mix of pro-social and anti-social friends		1			1	1	1		1
Only anti-social friends				2			2	1	
Gang member/associate	3	3	3			3	3	3	3
4c. Currently in a “romantic,” intimate, or sexual relationship									
Romantically involved: pro-social person	-1		-1		-1				
Not romantically involved	0		0		0				
Romantically involved: anti-social person	1		1		1				
ADMIRE & EMULATES									
5c. Currently admires/emulates anti-social peers									
Does not admire	-2	-1	-1	-1	-1	-1	-1	-1	-1
Somewhat admires	2	1	1	1	1	1	1	1	1
Admires	4	2	2	2	2	2	2	2	2
6c. Current resistance to anti-social peer influence									
Does not associate with	-4	-2	-2	-2	-2	-2	-2	-2	-2

Usually resists	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1
Rarely resists	2	1	1	1	1	1	1	1	1	1
Leads anti-social peers	4	2	2	2	2	2	2	2	2	2
DOMAIN 7: FAMILY										
HISTORY & CURRENT FAMILY CONFLICT, RUNAWAYS, & PARENTAL CONTROL SCALE	-4	10								
2h. History of running away or getting kicked out of home										
No history										
One instance										
Two or more instances										
9c. Youth has run away or been kicked out of home										
No run away/kicked out										
Runaway/kicked out										
Currently a runaway/kicked out										
11c. Level of conflict between parents, between youth and parents, among siblings										
Some family conflict: well managed										
Family verbal intimidation, arguments										
Family threats of physical abuse										
Domestic violence: physical/sexual abuse										
13c. Parental authority and control										
Usually follows family rules										
Sometimes follows family rules										
Consistently disobeys family										
Hostile toward family										
HISTORY OF OUT-OF-HOME PLACEMENTS, PETITIONS, & LIVING IN FOSTER HOME SCALES	-1	5								
1h. History of court-ordered or DSHS voluntary out-of-home and shelter care placements exceeding 30 days										
None	-1	-1	-1	-1		-1	-1	-1	-1	
One	1	1	1	1		1	1	1	1	
Two	2	2	2	2		2	2	2	2	
Three or more	3	3	3	3		3	3	3	3	
3h. History of petitions filed										
None	-1	-1	-1	-1		-1	-1	-1	-1	
One	1	1	1	1		1	1	1	1	
Two or more	1	1	1	1		1	1	1	1	
5h. Youth has been living under any "adult supervision"										
No	2	2	1	1	1	2	1	1	1	2
Yes	-2	-2	-1	-1	-1	-2	-1	-1	-1	-2

4h-3c. HISTORY OF CURRENT FAMILY MEMBERS IN JAIL/PRISON (select all that apply)										
Mother/female caretaker history	1	1	1	1	1	1	1	1	1	1
Father/male caretaker history	1	1	1	1	1	1	1	1	1	1
Sibling history	1	1	1	1	1	1	1	1	1	1
Current mother/female caretaker	1	1	1	1	1	1	1	1	1	1
Current father/male caretaker	1	1	1	1	1	1	1	1	1	1
Current sibling	1	1	1	1	1	1	1	1	1	1
Current other family member	1	1	1	1	1	1	1	1	1	1
1c. YOUTH IS CURRENTLY LIVING WITH (PROTECTIVE, select all that apply)										
Alone	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1
Mother	-4	-2	-2	-2	-1	-3	-1	-1	-2	-1
Father	-4	-2	-2	-2	-1	-3	-1	-1	-2	-1
Sibling	-4	-2	-2	-2	-1	-3	-1	-1	-2	-1
Grandparent	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1
1c. YOUTH IS CURRENTLY LIVING WITH (RISK, select all that apply)										
Transient	2	4	3	1	1	1	1	2	2	1
Foster/group home	2	4	3	1	1	1	1	2	2	1
5c. PROBLEM HISTORY OF SIBLINGS CURRENTLY INVOLVED WITH THE HOUSEHOLD (select all that apply)										
No siblings, none in household, or no problem	-1	-2								
Current sibling alcohol problem						1			1	
Current sibling drug problem						1			1	
Current sibling mental health problem						1			1	
Current sibling physical health problem						1			1	
Current sibling employment problem						1			1	
6c. Support network for family										
No family support										
Some family support										
Strong family support						-1				-1
2c. Annual combined income of youth and family										
Under \$15,000						-2				-2
\$15,000 to \$34,999										
\$35,000 to \$49,999										
\$50,000 and over										
4c. PROBLEM HISTORY OF PARENTS INVOLVED WITH THE HOUSEHOLD (select all that apply)										

None										
Alcohol problem										
Drug problem						1				1
Mental health problem										
Physical health problem										
Employment problem										
10c. FAMILY MEMBER(S) YOUTH FEELS CLOSE TO OR HAS GOOD RELATIONSHIP WITH (select all that apply)										
None	1	1	1	1	1	1	1	1	1	1
Mother/female caretaker	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Father/male caretaker	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Sibling	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Extended family	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
16c. Parental characterization of youth's anti-social behavior										
Disapproves of										1
Minimizes/excuses										-1
Okay with										-2
Proud of										-3
DOMAIN 8: SUBSTANCE ABUSE										
1h-1c. HISTORY & CURRENT ALCOHOL USE										
Past alcohol use	1						1			
Current alcohol use	2						2			
2h-2c. HISTORY & CURRENT DRUG USE										
Past drug use	3	1		2	2	2	1		1	1
Current drug use	6	2		4	4	4	2		2	2
2h-2c. DRUG ISSUES SCALE										
History and current alcohol/drug contribution to criminal behavior										
Past alcohol use contributed to criminal behavior	1					1	2		1	1
Past drug use contributed to criminal behavior	1					1	2		1	1
Alcohol contributes to criminal behavior	2					2	4		2	2
Drug contributes to criminal behavior	2					2	4	1	2	2
History and current alcohol/drug contribution to getting high/withdrawal										
Past alcohol use contributed to getting high/withdrawal		2		2	2		2		3	1
Past drug use contributed to getting high/withdrawal		2		2	2		2		3	1
Alcohol contributes to getting high/withdrawal		4		4	4		4		6	2
Drug contributes to getting high/withdrawal		4		4	4		4		6	2
History and current alcohol/drug contribution to education issues										
Past alcohol use						1				1

contributed to education issues										
Past drug use contributed to education issues					1					1
Alcohol contributes to education issues					2					2
Drug contributes to education issues					2		1			2
History and current alcohol/drug contribution to family conflict										
Past alcohol use contributed to family conflict					1		1			1
Past drug use contributed to family conflict					1		1			1
Alcohol contributes to family conflict					2		2			2
Drug contributes to family conflict					2		2			2
History and current alcohol/drug interferes with pro-social friendships										
Past alcohol use interferes with pro-social friendships										
Past drug use interferes with pro-social friendships										
Alcohol interferes with pro-social friendships										
Drug interferes with pro-social friendships							1			1
History and current alcohol/drug interferes with health										
Past alcohol use interferes with health										
Past drug use interferes with health										
Alcohol interferes with health										
Drug interferes with health							1			1
3c. TYPE OF DRUGS CURRENTLY USED (select all that apply)	0	3								
Marijuana/hashish	1			1	2	2			1	1
Amphetamines	1	1	1	1	1	6	1	1	1	1
Cocaine	1	1	1	1	1	6	1	1	1	1
Heroin	1	1		1	1	6	1		1	1
Other drugs	1	1		1	1	6	1		1	1
HISTORY & CURRENT REFERRALS & TREATMENT FOR DRUG/ALCOHOL SCALE										
3h. History of referrals for drug/alcohol assessment										
Never referred	0				0	0				0
Diagnosed: no drug/alcohol problem	0				0	0				0
Referred but not assessed for drug/alcohol	1				1	1				1
Diagnosed drug/alcohol abuse	2				2	2				2

Witnessed violence in community										
Witnessed violence at foster home	10	5	6	9	1			2		
MENTAL HEALTH ISSUE (select all that apply)										
Anger/intensive anger			2					4	1	1
Depression										
Somatic complaints										
2c. Currently diagnosed with ADD/ADHD										
Taking ADD/ADHD medication	-1				-1	-1	-1		-1	
No ADD/ADHD diagnosis, no ADD/ADHD medication	0				0	0	0		0	
ADD/ADHD medication prescribed, but not taking	1				1	1	1		1	
7h. Health insurance										
No	0	0	0	0	0	0	0	0	0	0
Yes	-1	-2	-1	-1	-1	-1	-1	-1	-1	-1
1c. Current suicide ideation										
Recent serious thoughts of suicide										
No recent thoughts of suicide			1		1					
Recently planned suicide			3					1		
Recently attempted suicide			4							
MENTAL HEALTH PROBLEMS	-6	4								
6h. History of mental health problems			0			0	0	0		
No history			1			1	1	1		
Diagnosed with mental health problem(s)			1			1	1	1		
Mental health medication prescribed			1			1	1	1		
Mental health treatment prescribed			2			2	2	2		
Mental health medication and treatment prescribed										
8h. Current mental health problem status			-4			-4	-4	-4		
No current mental health problem(s)			0			0	0	0		
Current mental health problem(s)										
3c. Mental health treatment currently prescribed, excluding ADD/ADHD treatment			-1			-1	-1	-1		
Attending mental health treatment			0			0	0	0		
No current mental health problem or no mental health treatment currently prescribed			1			1	1	1		
Mental health treatment prescribed but not attending										
4c. Mental health medication prescribed, excluding ADD/ADHD			-1			-1	-1	-1		

Taking mental health medication	0	0	0	0
No mental health problem or no mental health medication currently prescribed	1	1	1	1
Mental health medication prescribed but not taking	0	0	0	0
DOMAIN 10: ATTITUDES/BEHAVIOR				
BELIEF ITEMS	-10	21		
1. Primary emotion when committing last crime(s) within the last 6 months (select all that apply)				
Unconcerned/indifferent	-1	-1		
Nervous, afraid, worried, uncertain	-1	-1		
Excited, or stimulated	3	1	2	1
Confident/bragging	3	1	2	1
2. Primary purpose for committing crime(s) within the last 6 months (select all that apply)				
Anger	3	1	2	1
Revenge	3	1	2	1
Impulse	3	1	2	1
Sexual desire				
Money, material gain, drugs	3	1	2	1
Excitement, amusement	3	1	2	1
Status, acceptance, attention	3	1	2	1
3. Optimism				
High aspirations: sense of purpose, commitment to better life	-2	-2	-2	-2
Normal aspirations: some sense of purpose	1	1	1	1
Low aspirations: little sense of purpose or plans for better	1	1	1	1
Believes nothing matters: he or she will be dead before long	2	2	2	2
4. Impulsive; acts before thinking				
Uses self-control: usually thinks before acting	-2	-2	-2	-2
Uses some self-control: sometimes thinks before acting	1	1	1	1
Impulsive: often acts before thinking	1	1	1	1
Highly impulsive: usually acts before thinking	2	2	2	2
5. Belief in control over antisocial behavior				
Believes can stop anti-social behavior	-1	-1	-1	-1
Somewhat believes can stop anti-social behavior	0	0	0	0
Believes cannot stop anti-social behavior	1	1	1	1
6. Empathy, remorse, sympathy, or feelings for the victim(s) of criminal behavior				

Has empathy	-1	-1	-1	-1	-1	-1
Has some empathy	0	0	0	0	0	0
Does not have empathy	1	1	1	1	1	1
7. Respect for property of others						
Respects property of others	-1	-1	-1	-1	-1	-1
Respects personal, not publicly accessible, property	1	1	1	1	1	1
Conditional respect for personal property:	1	1	1	1	1	1
No respect for personal/public property	2	2	2	2	2	2
8. Respect for authority figures						
Respects most authority figures	-1	-1	-1	-1	-1	-1
Does not respect authority figures	1	1	1	1	1	1
Resents most authority figures	2	2	2	2	2	2
Defies/hostile toward most authority figures	3	3	3	3	3	3
9. Attitude toward pro-social rules/conventions in society						
Believes pro-social rules apply	-1	-1	-1	-1	-1	-1
Believes pro-social rules sometimes apply	1	1	1	1	1	1
Does not believe pro-social rules apply	2	2	2	2	2	2
Resents or is defiant toward rules	3	3	3	3	3	3
11. Youth's belief in successfully meeting conditions of court supervision						
Believes will be successful under supervision	-1	-1	-1	-1	-1	-1
Unsure of success under supervision	0	0	0	0	0	0
Does not believe will be successful under supervision	1	1	1	1	1	1
10. Accepts responsibility for anti-social behavior (select all that apply)						
Accepts responsibility	-1	-1	-1	-1	-1	-1
RESPONSIBILITY SCALE						
Minimizes, denies, justifies, excuses, or blames others for own behavior	1	1	1	1		
Accepts own anti-social behavior okay	1	1	1	1		
Proud of own anti-social behavior	1	1	1	1		
DOMAIN 11: AGGRESSION						
AGGRESSION BELIEFS						
1. Tolerance for frustration						
Rarely gets upset/temper tantrums	-1	-3	-1	-1		

Sometimes gets upset/temper tantrums		1	3			1		1		
Often gets upset/temper tantrums		2	6			2		2		
2. Hostile interpretation of actions and intentions of others in a common non - confrontational setting										
Primarily positive view	-1		-3			-1		-1		
Primarily negative view	1		3			1		1		
Primarily hostile view	2		6			2		2		
3. Belief in yelling and verbal aggression to resolve a disagreement or conflict										
Believes verbal aggression is rarely appropriate	-1		-3			-1		-1		
Believes verbal aggression is sometimes appropriate	1		3			1		1		
Believes verbal aggression is often appropriate	2		6			2		2		
4. Belief in fighting and physical aggression to resolve a disagreement or conflict										
Believes physical aggression is never appropriate	-2	-2	-6			-2	-2	-2		
Believes physical aggression is rarely appropriate	-1	-1	3			-1	-1	-1		
Believes physical aggression is sometimes appropriate	1	1	3			1	1	1		
Believes physical aggression is often appropriate	2	2	6			2	2	2		
5. REPORTS OR EVIDENCE OF VIOLENCE NOT INCLUDED IN CRIMINAL HISTORY (select all that apply)										
Violent destruction of property	1	2	1			1	1	2		
Violent outbursts, displays of temper, uncontrolled anger indicating potential for harm	1	2	1			1	1	2		
Deliberately inflicted physical pain	1	2	1			1	1	2		
Used/threatened with a weapon	1	2	4			1	1	2		
Fire starting reports	1	2	1	5		1	1	2	3	1
Animal cruelty reports	1	2	1	1		1	1	2	1	1
6. REPORTS/EVIDENCE OF SEXUAL AGGRESSION NOT INCLUDED IN CRIMINAL HISTORY										
No reports	-3	-1	-3	-3	-2	-4	-3	-3	-3	-1
Reports of aggressive sex	3	1	3	3	2	4	3	3	3	1
Reports of sex for power	3	1	3	3	2	4	3	3	3	1
Reports of child sex	3	1	3	3	2	4	3	3	3	1
Reports of voyeurism	3	1	3	3	2	4	3	3	3	1
Reports of exposure	3	1	3	3	2	4	3	3	3	1
DOMAIN 12: SKILLS										

SKILLS DOMAIN	-28	15
1. Consequential thinking		
Does not understand about consequences of actions	1	1
Understands about consequences to actions	-1	-1
Identifies consequences of actions	-2	-2
Good consequential thinking and acting	-3	-3
2. Goal setting		
Does not set any goals	2	2
Sets unrealistic goals	1	1
Sets somewhat realistic goals	-1	-1
Sets realistic goals	-2	-2
3. Problem-solving		
Cannot identify problem behaviors	1	1
Identifies problem behaviors	-1	-1
Thinks of solutions for problem behaviors	-2	-2
Applies appropriate solutions to problem behaviors	-3	-3
4. Situational perception		
Cannot analyze the situation for use of a prosocial skill	1	1
Does not choose the best pro-social skill	-1	-1
Chooses best skill but not best time and place	-2	-2
Selects the best time and place for best skill	-3	-3
5. Dealing with others		
Lacks basic social skills in dealing with others	1	1
Lacks advanced skills in dealing with others	-1	-1
Sometimes uses advanced social skills in dealing with others	-2	-2
Often uses advanced social skills in dealing with others	-3	-3
6. Dealing with difficult situations		
Lacks skills in dealing with difficult situations	2	2
Rarely uses skills in dealing with difficult situations	1	1
Sometimes uses skills in dealing with difficult situations	-1	-1
Often uses skills in dealing with difficult situations	-2	-2
7. Dealing with feelings/emotions		
Lacks skills in dealing with feelings	2	2
Rarely uses skills in dealing with feelings	1	1
Sometimes uses skills in dealing with feelings	-1	-1

Often uses skills in dealing with feelings	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
8. Monitoring of internal triggers										
Cannot identify internal triggers	1	1	1	1	1	1	1	1	1	1
Identifies internal triggers	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Actively monitors/controls internal triggers	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
9. Monitoring of external triggers										
Cannot identify external triggers	1	1	1	1	1	1	1	1	1	1
Identifies external triggers	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Actively monitors/controls external triggers	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
10. Control of impulsive behaviors that get youth into trouble										
Never a problem with impulsive behavior	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Lacks techniques to control impulsive behavior	1	1	1	1	1	1	1	1	1	1
Knows techniques to control impulsive behavior	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Uses techniques to control impulsive behavior	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
11. Control of aggression										
Never a problem with aggression	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Lacks alternatives to aggression	2	2	2	2	2	2	2	2	2	2
Rarely uses alternatives to aggression	1	1	1	1	1	1	1	1	1	1
Sometimes uses alternatives to aggression	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Often uses alternatives to aggression	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2

Full Assessment Modeling Results

	Male					Female				
	Any	Felony	Violent	Property	Drug	Any	Felony	Violent	Property	Drug
MODEL AUC	0.67	0.68	0.67	0.66	0.65	0.64	0.67	0.7	0.64	0.67
CURRENT AUC	0.63					0.60				
CUT POINT										
Low-Moderate	-33					-28				
Moderate-High	22	23	15	15	12	60	55	47	40	40
POPULATION %										
Low	3					3				
Moderate										
High	50	50	50	49	50	17	8	12	14	14
RECIDIVISM %										
Low	19					20				
Moderate										
High	64	31	29	38	11	59	24	30	32	8
GENDER-NEUTRAL BASE RATE	34	16	14	19	5	34	16	14	19	5

Appendix V. Construct Validity (EFA and CFA)

The literature suggests that the construct validity of the criminogenic needs of most of the existing RNA instruments has not been fully established (Mei, 2018), in part due to the lack of dynamic items in the construction of the risk/needs assessment tools (Hamilton et al, 2016; Viglione, Rudes, & Taxman, 2014). Additionally, validation studies adhering to the industry standards and protocols have not been conducted (Mei, 2018). In order to validate the construct validity of criminogenic needs assessed by an RNA tool, each of the following performance criteria must be supported: (1) evidence on internal latent structure; (2) convergent/discriminate validity; (3) concurrent and predictive validity; and (4) content validity (Hayens, 1995; Rios & Wells, 2014; American Educational Research Association [AERA]; American Psychological Association [APA]; National Council on Measurement in Education [NCME], 2014). The purpose of the analyses presented here is to establish the construct validity of the criminogenic needs assessed by the PACT. Specifically, we examined its internal latent structure and convergent/divergent validity via rigorous psychometric analyses.

Sample

To evaluate the construct validity of the PACT, we utilized a total sample of 45,975 juveniles from Washington State. These youths' risk and needs were assessed between December 10th, 2003 and June 30th, 2017. The sample includes 34,220 males and 11,755 females.

Method

To evaluate the construct validity of the criminogenic needs assessed by the PACT, this study utilizes a series of statistical tests to examine all of the objective sub-types of construct validity, including: (1) evidence of an internal latent structure; (2) convergent and discriminate validity; and (3) concurrent and predictive validity. The content validity will not be directly evaluated because it requires Subject-Matter-Experts (SMEs) direct and subjective input (Sireci & Faulkner-Bond, 2014). The analyses will be conducted within the framework of Structural Equation Modeling (SEM). When testing the statistical relationships among each of manifest items, analyses will be conducted within the theoretical framework of Item Factor Analysis (IFA) or Item Response Theory (IRT), as the items are categorical in nature. Although IFA and IRT are considered independent theoretical frameworks, there are no substantial differences between them (Thomas, 2011). When testing the statistical relationships among the composite scores or scales, analyses will be conducted within the theoretical framework of Classical Test Theory ([CTT]; Spearman, 1904; Zimmerman, 1975; Lord & Novick, 1968; Steyer & Eid, 2001) due to the continuous nature of the composite scores.

(a) Internal Latent Structure

The internal latent structure validity of an RNA is established when the proposed independent measures of the constructs are identified, confirmed and supported by empirical evidence. The internal latent structure validity involves three aspects: dimensionality; measurement invariance; and reliability (Rios & Wells, 2014).

1. Internal Latent Structure – Dimensionality

The most common method to establish dimensionality validity is through a CFA (DeVellis, 2003). For constructs that have multiple dimensions/domains, a Second/Higher Order Modeling approach is the most acceptable method to confirm a construct's multi-dimensionality (Rios & Wells, 2014; Mei et al., 2017; Mei et al., 2018). A CFA is generally used to confirm the proposed or hypothesized number of factors. The higher order modeling approach is utilized to extract a higher order factor that explains common variance

among lower level factors (Chen, Sousa & West, 2005; Geiser, 2012; Little, 2013; Mei et al., 2017; Mei et al., 2018b).

2. Internal Latent Structure - Measurement Invariance

Measurement invariance represents a lack of systematic assessment bias based on items' functionality and one's group membership (Mei, 2018). A RNA's measurement invariance can be established at item level for lower level factors and scale level for higher order factors (Mei, 2018). For scale level invariance, the measurement invariance concerns whether or not the measurement lacks systematic bias across different assessment groups. In this study, gender is used as the group membership because of concerns regarding misclassification of female offenders (Berman, 2005; Bloom, Owen, & Covington, 2003; Van Voorhis & Presser, 2001). If a higher order factor model is retained, then the statistical equivalence of the factor loadings is further tested. To assess item and scale invariance, Multiple Group Confirmatory Factor Analysis ([MGCFA]; Rios & Wells, 2014) is used. MGCFA takes advantage of the CFA and group membership, enabling researchers to evaluate dimensionality and measurement invariance in unified statistical models (Mei, 2018).

3. Internal Latent Structure - Scale Reliability

Scale reliability (construct reliability) concerns the internal consistency of the proposed measures. When evaluating scale reliability, Cronbach's alpha is used to evaluate scales that passed the item invariance tests (Mei, 2018). Cronbach's alpha coefficient is only considered a fair estimate of a scale's internal consistency when a scale passed metric level invariance, is tau-equivalent, or is parallel (Cortina, 1993; John & Soto, 2007; Peters, 2014; Raykov, 2001a; Raykov, 2001b; Sijtsma, 2009; Tavakol & Dennick, 2011). If these conditions are not met, the *ω*h reliability coefficient (Revelle & Zinbarg, 2009; Joreskog, 1971; Dillon & Goldstein, 1984) is the preferred construct reliability estimator, as it does not assume item invariance for a congeneric non-parallel scale.

4. Internal Latent Structure - Global Risk-Needs Factor (G-Factor)

Similar to most RNA instruments, the PACT assumes that there is an objective and global criminogenic need that could be measured by estimating each assessment domain/construct. Before testing the Global Criminogenic Needs Factor, the weighted composite scores of each assessment construct will be used as indicators in the final model. This procedure allows researchers to use only the true score variance of these constructs given the fact that most of the constructs are multi-dimensional in nature. The unweighted scores contain both true score variance and factors disturbance. The weighted composite allows researchers to exact only the reliable proportion of total variance of a given factor so that the unbiased statistical relationships among the confirmed constructs can be fairly estimated (Mei, 2018).

(b) Convergent/Divergent Validity

While the convergent validity test evaluates how well theoretically related items or scales converge with one another, the divergent validity test assesses how much theoretically unrelated items or scales discriminate (e.g. differ) from one another. Convergent and divergent validity can be established at both the item and scale level. The PACT contains eight domains and proposes to represent eleven distinguishable criminogenic needs. By first conducting convergent/divergent validity tests at the item level, this study will empirically test whether the proposed domains stand as independent constructs. Convergent and divergent validity will further be examined at the scale level once the internal latent structure is confirmed through MGCFA.

The most acceptable and available method to test convergent and divergent validity is with an EFA (Brown, 2014; Mei, 2018). To test the convergent and divergent validity of the items, we break the PACT

items into five groups. Instead of analyzing all of the items and their convergent and divergent validity in one EFA model, this procedure enables us to obtain the convergent and divergent validity much more efficiently while also maintaining statistical integrity. EFA analyses will be conducted on each of the 10 possible group combinations amongst the five groups. At the scale level, the EFA will be conducted to test the level of convergence and divergence amongst the scales once their dimensionality is confirmed. Based on the EFA evidence, we will further test the legitimacy of exacting a higher order factor through MGCFA with structural and measurement invariance tests. A higher order factor will only be retained if the higher order factor does not contribute to detrimental model fit and if it does not fail measurement invariance tests at factor level.

Analytical Strategy

When testing the internal latent structure of the PACT, this study will utilize MGCFA analyses and associated statistical criterions to evaluate dimensionality, measurement invariance and construct reliability. Once the internal latent structure of the PACT is confirmed and measurement invariance is achieved, the CFA analysis will be used to test the hypothesized higher order G-factor true score variance model. This study will also use the industry statistical criterions and acceptable standards when evaluating CFA or MGCFA models (e.g. the CFI, TLI, RMSEA, and associated rules to examine the fit of IRT/IFA models). A model has an acceptable fit if the CFI/TLI is greater than 0.90 and the RMSEA is less than 0.08 (Brown, 2014; Little, 2013; Want & Wang, 2012). The fit is close or good if the CFI/TLI is greater than 0.95 and the RMSEA is less than 0.05. To evaluate measurement invariance, the measurement invariance model will be compared to previous models via changes in the CFI and TLI values (see Little, 2013).

Scale reliability will be estimated according to the level of measurement a factor achieved. Both Cronbach's alpha and the *n/h* coefficient will be calculated to assess reliability. When evaluating the G-Factor model, this study will follow the procedure proposed by Mei (2018, p.91). This approach enables researchers to establish a parsimonious model in which multidimensional/higher order factors' true score variance is used. The EFA tests will be used to evaluate the convergent and divergent validity of the PACT at both the item and scale level. Although there are multiple available EFA model evaluation criterions, this study will only use Kaiser-Guttman rule, goodness of fit, strength of the loading/cross-loading, and theory as foundation to facilitate the model evaluation process, as suggested by Mei (2018).

Results

First, we examine convergence and divergence of PACT items. Item(s) may be relocated to other scales according to EFA results. Once the convergent and divergent validity is established at the item level, MGCFA will be conducted to confirm the PACT's internal latent structure. We then use an EFA to evaluate convergence and divergence at the scale level, and results from this analysis is then used to inform higher order modeling. Once the higher order factors are identified and confirmed, their composite scores and construct reliability will be assessed. Finally, the G-factor model will be evaluated by using the true/reliable score variance as indicators.

Convergent/Divergent Validity at Item Level

The EFA analyses were conducted on all ten possible group combinations. Group 1 contains domain 3, 4, 5 and 6. Group 2 only contains domain 7, while Group 3 only consists of domain 8. Group 4 contains domain 9 and 10. Group 5 involves domains 11, 12 and 13. The results of the EFA analyses at the item level are presented in Tables 1 through 11. Table 1 provides the best model solution for each group combination while subsequent tables display factor loadings.

Table 1. EFA on Group Combinations

Groups	Model	df	CFI	TLI	RMSEA [90% C.I.]
1 & 2	9 factors	397	.997	.995	.031 [.031-.031]
1 & 3	10 factors	486	.994	.989	.034 [.033-.034]
1 & 4	8 factors	427	.997	.996	.030 [.029-.030]
1 & 5	7 factors	489	.996	.994	.037 [.036-.037]
2 & 3	9 factors	342	.993	.988	.023 [.022-.023]
2 & 4	6 factors	319	.966	.948	.032 [.032-.032]
2 & 5	7 factors	318	.986	.977	.033 [.033-.033]
3 & 4	6 factors	429	.990	.985	.025 [.025-.026]
3 & 5	7 factors	428	.987	.979	.038 [.037-.038]
4 & 5	5 factors	373	.981	.973	.036 [.036-.037]

Table 2 EFA on Group 1 (D3 D4 D5 D6) + Group 2 (D7)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7	F8	F9
<i>Enrollment</i>	<i>D3B1AN</i>	.891								
<i>Involvement</i>	<i>D3B6N</i>	.746								
<i>Attendance</i>	<i>D3B3A1</i>	.949								
<i>Value in Ed</i>	<i>D3B4N</i>	.935								
<i>Encourage</i>	<i>D3B5N</i>	.665								
<i>Staff Comfort</i>	<i>D3B7N</i>	.645	.564							
<i>Conduct</i>	<i>D3B8N</i>	.749	.538							
<i>Suspend/Expel</i>	<i>D3B9N</i>	.770								
<i>Performance</i>	<i>D3B10N</i>	.721								
<i>Assess Stay</i>	<i>D3B11N</i>	.808								
<i>Structured Activity</i>	<i>D4B1N</i>			.889						
<i>Type of Structured Activity</i>	<i>D4B2N</i>			1.016						
<i>Unstructured Activity</i>	<i>D4B3N</i>			--						
<i>Understand Job Maintain</i>	<i>D5B1N</i>				.759					
<i>Current Interest</i>	<i>D5B2N</i>				.918					
<i>Employment Status</i>	<i>D5B3N</i>				--					
<i>Positive Adult</i>	<i>D6B1N</i>					.720				
<i>Community Ties</i>	<i>D6B2N</i>					.658				
<i>Friends/ Companions</i>	<i>D6B3N</i>						.671			
<i>Romantic Relationship</i>	<i>D6B4N</i>						--			
<i>Admires/ Emulates</i>	<i>D6B5N</i>						.865			
<i>Resistance to Anti-social</i>	<i>D6B6N</i>						.817			
<i>Annual Income</i>	<i>D7B1N</i>							.324		
<i>Risk 'Living With' Relationship</i>	<i>D7B2N</i>							.473		
<i>Family Jail/ Prison</i>	<i>D7B3N</i>								.763	
<i>Parent Problem</i>	<i>D7B4N</i>								.745	
<i>Sibling Problem</i>	<i>D7B5N</i>								.435	
<i>Support Network</i>	<i>D7B6N</i>							.593		
<i>Willing to Support</i>	<i>D7B7N</i>							.867		
<i>Opportunities for Family Activities</i>	<i>D7B8N</i>							.791		
<i>Run away/ kicked out</i>	<i>D7B9N</i>								.474	
<i>Family Member Relationships</i>	<i>D7B10N</i>							.320		
<i>Level of Family Conflict</i>	<i>D7B11N</i>								.713	
<i>Parental Supervision</i>	<i>D7B12N</i>							.736		
<i>Parental Authority</i>	<i>D7B13</i>							.477	.352	
<i>Consistent Punishment</i>	<i>D7B14N</i>							.568		
<i>Consistent Rewards</i>	<i>D7B15N</i>							.754		
<i>Parental Characterization Youth's Behavior</i>	<i>D7B16N</i>							.427		

As shown in Table 1, a nine-factor solution represented the best model for Groups 1 and 2. The corresponding factor loadings for this model are moderate to strong (see Table 2). Accordingly, there is divergent validity at the item level for domains 3, 4, 5, 6 and 7. Convergent validity is also demonstrated by within domain loadings with the exception of the 'Unstructured Activity', 'Employment Status' and 'Romantic Relationship' items. These three items did not load onto their theoretically hypothesized domains.

Table 3 EFA on Group 1 (D3 D4 D5 D6) + Group 3 (D8)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
<i>Enrollment</i>	<i>D3B1A1N</i>	.837									
<i>Involvement</i>	<i>D3B6N</i>	.685									
<i>Attendance</i>	<i>D3B3A1</i>	.918									
<i>Value in Ed</i>	<i>D3B4N</i>	.899									
<i>Encourage</i>	<i>D3B5N</i>	.532									
<i>Staff Comfort</i>	<i>D3B7N</i>	.685	.546								
<i>Conduct</i>	<i>D3B8N</i>	.785	.560								
<i>Suspend/ Expel</i>	<i>D3B9N</i>	.722									
<i>Performance</i>	<i>D3B10N</i>	.695									
<i>Assess Stay</i>	<i>D3B11N</i>	.798									
<i>Structured Activity</i>	<i>D4B1N</i>			.984							
<i>Type of Structured Activity</i>	<i>D4B2N</i>			.953							
<i>Unstructured Activity</i>	<i>D4B3N</i>			--							
<i>Understand Job Maintain</i>	<i>D5B1N</i>				.776						
<i>Current Interest</i>	<i>D5B2N</i>				.923						
<i>Employment Status</i>	<i>D5B3N</i>				--						
<i>Positive Adult</i>	<i>D6B1N</i>					.734					
<i>Community Ties</i>	<i>D6B2N</i>					.585					
<i>Friends/ Companions</i>	<i>D6B3N</i>						.597				
<i>Romantic Relationship</i>	<i>D6B4N</i>						--				
<i>Admires/ Emulates</i>	<i>D6B5N</i>						.860				
<i>Resistance to Anti-social</i>	<i>D6B6N</i>						.792				
<i>Marijuana Use</i>	<i>D8B3_1</i>							1.008			
<i>Meth use</i>	<i>D8B3_2</i>									.644	
<i>Cocaine/ Crack Use</i>	<i>D8B3_3</i>									.627	
<i>Heroin/ Opiate Use</i>	<i>D8B3_4</i>									.682	
<i>Other Drug Use</i>	<i>D8B3_5</i>									.475	
<i>Alcohol Disrupts Ed</i>	<i>D8B1_2</i>								.912		
<i>Alcohol Family Conflict</i>	<i>D8B1_3</i>								.925		
<i>Alcohol Interferes Pro-Social Friends</i>	<i>D8B1_4</i>								.874		
<i>Alcohol Use Health Problems</i>	<i>D8B1_5</i>								.931		
<i>Alcohol Contributes Criminal Behavior</i>	<i>D8B1_6</i>								.876		
<i>Alcohol Tolerance</i>	<i>D8B1_7</i>								.622	.642	
<i>Alcohol Withdrawal</i>	<i>D8B1_8</i>								.641	.632	
<i>Drug Disrupts Ed</i>	<i>D8B2_2</i>						.563	.392			
<i>Drug Family Conflict</i>	<i>D8B2_3</i>						.575	.103			
<i>Drug Interferes Pro-Social Friends</i>	<i>D8B2_4</i>						.572	.408			
<i>Drug Use Health Problems</i>	<i>D8B2_5</i>							.462	.517		
<i>Drug Contributes Criminal Behavior</i>	<i>D8B2_6</i>						.487	.314			
<i>Drug Tolerance</i>	<i>D8B2_7</i>						.340			.711	
<i>Drug Withdrawal</i>	<i>D8B2_8</i>						.547			.781	
<i>Treatment</i>	<i>D8B4</i>						.708				

A 10-factor solution represented the best fit for the combination of Groups 1 and 3. As shown in Table 3, there are no cross-loading across the domains; thus, divergent validity at the item level is present for domain 3, 4, 5, 6, and 8. Convergent validity for most of the items is substantiated with the exception of: ‘Unstructured Activity’; ‘Employment Status’; and ‘Romantic Relationship’. These items did not load onto their proposed domains.

Table 4 EFA on Group 1 (D3 D4 D5 D6) + Group 4 (D9 D10)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7	F8
<i>Enrollment</i>	<i>D3B1A1N</i>	.957							
<i>Involvement</i>	<i>D3B6N</i>	.747							
<i>Attendance</i>	<i>D3B3A1</i>	.934							
<i>Value in Ed</i>	<i>D3B4N</i>	.920							
<i>Encourage</i>	<i>D3B5N</i>	.569							
<i>Staff Comfort</i>	<i>D3B7N</i>	.803	.536						
<i>Conduct</i>	<i>D3B8N</i>	.915	.556						
<i>Suspend/Expel</i>	<i>D3B9N</i>	.808							
<i>Performance</i>	<i>D3B10N</i>	.740							
<i>Assess Stay</i>	<i>D3B11N</i>	.803							
<i>Structured Activity</i>	<i>D4B1N</i>			.798					
<i>Type of Structured Activity</i>	<i>D4B2N</i>			1.096					
<i>Unstructured Activity</i>	<i>D4B3N</i>			--					
<i>Understand Job Maintain</i>	<i>D5B1N</i>				.784				
<i>Current Interest</i>	<i>D5B2N</i>				.760				
<i>Employment Status</i>	<i>D5B3N</i>				--				
<i>Positive Adult</i>	<i>D6B1N</i>					.769			
<i>Community Ties</i>	<i>D6B2N</i>					.732			
<i>Friends/ Companions</i>	<i>D6B3N</i>						.573		
<i>Romantic Relationship</i>	<i>D6B4N</i>						--		
<i>Admires/Emulates</i>	<i>D6B5N</i>						.710		
<i>Resistance to Anti-social</i>	<i>D6B6N</i>						.707		
<i>Suicide Ideation</i>	<i>D9B1_8N</i>							.694	
<i>ADD/ADHD</i>	<i>D9B2N</i>							.709	
<i>Treatment</i>	<i>D9B3N</i>							.926	
<i>Medication</i>	<i>D9B4N</i>							.923	
<i>MHI Issue Interfere Working with Youth</i>	<i>D9B5N</i>							.816	
<i>Primary Criminal Emotion</i>	<i>D10.A1N</i>								.310
<i>Primary Criminal Purpose</i>	<i>D10.A2N</i>								--
<i>Optimism</i>	<i>D10.A3N</i>								.418
<i>Impulsive</i>	<i>D10.A4N</i>								.494
<i>Belief in Control Actions</i>	<i>D10.A5N</i>								.615
<i>Empathy</i>	<i>D10.A6N</i>								.652
<i>Respect Property</i>	<i>D10.A7N</i>								.788
<i>Respect Authority</i>	<i>D10.A8N</i>								.605
<i>Pro-Social Conventions</i>	<i>D10.A9N</i>								.758
<i>Accepts Responsibility</i>	<i>D10.A10N</i>								.535
<i>Belief in Success</i>	<i>D10.A11N</i>								.801

We retained an eight-factor solution for Groups 1 and 4. Table 4 shows that the eight-factor solution has no cross-loadings. Divergent validity is supported by a clear pattern of cross-loadings. Convergent validity for most items is supported by their within domain loadings. The ‘Unstructured Activity’, ‘Employment Status’, ‘Romantic Relationship’, and ‘Primary Criminal Purpose’, items have questionable convergent validity, as they did not load onto their corresponding domains.

Table 5 EFA on Group 1 (D3 D4 D5 D6) + Group 5 (D11 D12)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7
<i>Enrollment</i>	<i>D3B1AN</i>	.951						
<i>Involvement</i>	<i>D3B6N</i>	.737						
<i>Attendance</i>	<i>D3B3A1</i>	.945						
<i>Value in Eid</i>	<i>D3B4N</i>	.937						
<i>Encourage</i>	<i>D3B5N</i>	.611						
<i>Staff Comfort</i>	<i>D3B7N</i>	.821	.539					
<i>Conduct</i>	<i>D3B8N</i>	.925	.517					
<i>Suspend/ Expel</i>	<i>D3B9N</i>	.795						
<i>Performance</i>	<i>D3B10N</i>	.723						
<i>Assess Stay</i>	<i>D3B11N</i>	.796						
<i>Structured Activity</i>	<i>D4B1N</i>			.990				
<i>Type of Structured Activity</i>	<i>D4B2N</i>			.974				
<i>Unstructured Activity</i>	<i>D4B3N</i>			--				
<i>Understand Job Maintain</i>	<i>D5B1N</i>				.872			
<i>Current Interest</i>	<i>D5B2N</i>				.762			
<i>Employment Status</i>	<i>D5B3N</i>				--			
<i>Positive Adult</i>	<i>D6B1N</i>				.484			
<i>Community Ties</i>	<i>D6B2N</i>				.446			
<i>Friends/ Companions</i>	<i>D6B3N</i>					.669		
<i>Romantic Relationship</i>	<i>D6B4N</i>					--		
<i>Admires/ Emulates</i>	<i>D6B5N</i>					.848		
<i>Resistance to Anti-social</i>	<i>D6B6N</i>					.826		
<i>Frustration Tolerance</i>	<i>D11A1N</i>						.717	
<i>Hostile Perception</i>	<i>D11A2N</i>						.523	
<i>Belief in Yelling</i>	<i>D11A3N</i>						.901	
<i>Belief in Fighting</i>	<i>D11A4N</i>						.871	
<i>Violent Events Reported</i>	<i>D11A5N</i>						.730	
<i>Control Sexual Aggression</i>	<i>D11A6N</i>						--	
<i>Consequential Thinking</i>	<i>D12A1N</i>							.809
<i>Goal Setting</i>	<i>D12A2N</i>							.533
<i>Problem Solving</i>	<i>D12A3N</i>							.945
<i>Situational Perception</i>	<i>D12A4N</i>							.904
<i>Dealing with Others</i>	<i>D12A5N</i>							.888
<i>Difficult Situations</i>	<i>D12A6N</i>							.899
<i>Dealing with Emotions</i>	<i>D12A7N</i>							.884
<i>Internal Triggers</i>	<i>D12A8N</i>							1.049
<i>External Triggers</i>	<i>D12A9N</i>							1.022
<i>Control Impulses</i>	<i>D12A10N</i>							.553
<i>Control Aggression</i>	<i>D12A11N</i>							--

A seven-factor solution was retained for Groups 1 and 5. Divergent and convergent validity is evident for many of the items; however, several items lack validity (see Table 5). These items include: ‘Unstructured Activity’; ‘Employment Status’; ‘Romantic Relationship’; ‘Control Sexual Aggression’; and ‘Control Aggression’. These items’ within domain loadings are weak and negligible.

Table 6 EFA on Group 2 (D7) + Group 3 (D8)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7	F8	F9
<i>Annual Income</i>	<i>D7B1N</i>	.252								
<i>Risk ‘Living With’ Relationship</i>	<i>D7B2N</i>	.335						.491		
<i>Family Jail/ Prison</i>	<i>D7B3N</i>		.738							
<i>Parent Problem</i>	<i>D7B4N</i>		.745							
<i>Sibling Problem</i>	<i>D7B5N</i>		.419							
<i>Support Network</i>	<i>D7B6N</i>	.623								
<i>Willing to Support</i>	<i>D7B7N</i>	.526								
<i>Opportunities for Family Activities</i>	<i>D7B8N</i>	.739								
<i>Run away/ kicked out</i>	<i>D7B9N</i>				.485					
<i>Family Member Relationships</i>	<i>D7B10N</i>	.444			.341					
<i>Level of Family Conflict</i>	<i>D7B11N</i>		.366		.693					
<i>Parental Supervision</i>	<i>D7B12N</i>			.721						
<i>Parental Authority</i>	<i>D7B13</i>			.393	.392					
<i>Consistent Punishment</i>	<i>D7B14N</i>			.794						
<i>Consistent Rewards</i>	<i>D7B15N</i>			.650						
<i>Parental Characterization Youth’s Behavior</i>	<i>D7B16N</i>			.559						
<i>Marijuana Use</i>	<i>D8B3_1</i>					1.071				
<i>Meth use</i>	<i>D8B3_2</i>					.626			.498	

<i>Cocaine/Crack Use</i>	<i>D8B3_3</i>	.612		.510
<i>Heroin/Opiate Use</i>	<i>D8B3_4</i>	.575		.420
<i>Other Drug Use</i>	<i>D8B3_5</i>	.552		.321
<i>Alcohol Disrupts Ed</i>	<i>D8B1_2</i>		.955	
<i>Alcohol Family Conflict</i>	<i>D8B1_3</i>		.968	
<i>Alcohol Interferes Pro-Social Friends</i>	<i>D8B1_4</i>		.973	
<i>Alcohol Use Health Problems</i>	<i>D8B1_5</i>		.860	.396
<i>Alcohol Contributes Criminal Behavior</i>	<i>D8B1_6</i>		.985	
<i>Alcohol Tolerance</i>	<i>D8B1_7</i>		.610	.636
<i>Alcohol Withdrawal</i>	<i>D8B1_8</i>		.551	.562
<i>Drug Disrupts Ed</i>	<i>D8B2_2</i>	.631	.444	
<i>Drug Family Conflict</i>	<i>D8B2_3</i>	.620	.419	
<i>Drug Interferes Pro-Social Friends</i>	<i>D8B2_4</i>	.567	.472	
<i>Drug Use Health Problems</i>	<i>D8B2_5</i>	.357	.512	
<i>Drug Contributes Criminal Behavior</i>	<i>D8B2_6</i>	.630	.403	.457
<i>Drug Tolerance</i>	<i>D8B2_7</i>	.493		.721
<i>Drug Withdrawal</i>	<i>D8B2_8</i>	.543		.617
<i>Treatment</i>	<i>D8B4</i>	.678		

For Groups 2 and 3, a nine-factor solution was retained. As shown in Table 6, there is a clear factorial pattern, and only one item (the risk ‘Living With’ Relationship from domain 7) cross-loaded onto a factor in domain 8. Otherwise, the convergent and divergent validity of most of the items is supported.

Table 7 EFA on Group 2 (D7) + Group 4 (D9 D10)

Item	Var Name	F1	F2	F3	F4	F5	F6
<i>Annual Income</i>	<i>D7B1N</i>						
<i>Risk ‘Living With’ Relationship</i>	<i>D7B2N</i>	.501					
<i>Family Jail/ Prison</i>	<i>D7B3N</i>		.756				
<i>Parent Problem</i>	<i>D7B4N</i>		.747				
<i>Sibling Problem</i>	<i>D7B5N</i>		.426				
<i>Support Network</i>	<i>D7B6N</i>	.563			.358		
<i>Willing to Support</i>	<i>D7B7N</i>	.863					
<i>Opportunities for Family Activities</i>	<i>D7B8N</i>	.770			.364		
<i>Run away/ kicked out</i>	<i>D7B9N</i>			.399			
<i>Family Member Relationships</i>	<i>D7B10N</i>			--			
<i>Level of Family Conflict</i>	<i>D7B11N</i>			.693			
<i>Parental Supervision</i>	<i>D7B12N</i>	.843					
<i>Parental Authority</i>	<i>D7B13</i>	.628					
<i>Consistent Punishment</i>	<i>D7B14N</i>	.661					
<i>Consistent Rewards</i>	<i>D7B15N</i>	.807					
<i>Parental Characterization Youth’s Behavior</i>	<i>D7B16N</i>	.382					
<i>Suicide Ideation</i>	<i>D9B1_8N</i>					.612	
<i>ADD/ ADHD</i>	<i>D9B2N</i>					.738	
<i>Treatment</i>	<i>D9B3N</i>					.918	

<i>Medication</i>	<i>D9B4N</i>	.908	
<i>MHI Issue Interfere Working with Youth</i>	<i>D9B5N</i>	.832	
<i>Primary Criminal Emotion</i>	<i>D10.A1N</i>		.360
<i>Primary Criminal Purpose</i>	<i>D10.A2N</i>		--
<i>Optimism</i>	<i>D10.A3N</i>		.696
<i>Impulsive</i>	<i>D10.A4N</i>		.660
<i>Belief in Control Actions</i>	<i>D10.A5N</i>		.759
<i>Empathy</i>	<i>D10.A6N</i>		.806
<i>Respect Property</i>	<i>D10.A7N</i>		.786
<i>Respect Authority</i>	<i>D10.A8N</i>		.852
<i>Pro-Social Conventions</i>	<i>D10.A9N</i>		.768
<i>Accepts Responsibility</i>	<i>D10.A10N</i>		.503
<i>Belief in Success</i>	<i>D10.A11N</i>		.760

A six-factor solution was obtained for Groups 2 and 4. Most of the items demonstrated divergent validity among domains 7, 9 and 10. There are a few items whose convergent validity was not supported by the EFA results, as they did not load onto any of the factors within their domains. These items are ‘Annual Income’, ‘Family Member Relationships’ and ‘Primary Criminal Purpose’. The convergent and divergent validity for these items needs to be tested further.

Table 8 EFA on Group 12 (D7) + Group 5 (D11 D12)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7
<i>Annual Income</i>	<i>D7B1N</i>	.332						
<i>Risk 'Living With' Relationship</i>	<i>D7B2N</i>	.388						
<i>Family Jail/Prison</i>	<i>D7B3N</i>		.751					
<i>Parent Problem</i>	<i>D7B4N</i>		.731					
<i>Sibling Problem</i>	<i>D7B5N</i>		.411					
<i>Support Network</i>	<i>D7B6N</i>	.639						
<i>Willing to Support</i>	<i>D7B7N</i>	.611			.388			
<i>Opportunities for Family Activities</i>	<i>D7B8N</i>	.774						
<i>Ran away/kicked out</i>	<i>D7B9N</i>			.371				
<i>Family Member Relationships</i>	<i>D7B10N</i>	.456						
<i>Level of Family Conflict</i>	<i>D7B11N</i>	--		.411		.467		
<i>Parental Supervision</i>	<i>D7B12N</i>	.304			.696			
<i>Parental Authority</i>	<i>D7B13</i>				.404	.326		
<i>Consistent Punishment</i>	<i>D7B14N</i>				.750			
<i>Consistent Rewards</i>	<i>D7B15N</i>	.338			.566			
<i>Parental Characterization Youth's Behavior</i>	<i>D7B16N</i>				.485			
<i>Frustration Tolerance</i>	<i>D11.A1N</i>					.669		
<i>Hostile Perception</i>	<i>D11.A2N</i>					.515		
<i>Belief in Yelling</i>	<i>D11.A3N</i>					.923		
<i>Belief in Fighting</i>	<i>D11.A4N</i>					.929		
<i>Violent Events Reported</i>	<i>D11.A5N</i>					.715		

<i>Control Sexual Aggression</i>	<i>D11A6N</i>	--	
<i>Consequential Thinking</i>	<i>D12A1N</i>	.772	
<i>Goal Setting</i>	<i>D12A2N</i>	.631	
<i>Problem Solving</i>	<i>D12A3N</i>	.887	
<i>Situational Perception</i>	<i>D12A4N</i>	.928	
<i>Dealing with Others</i>	<i>D12A5N</i>	.956	
<i>Difficult Situations</i>	<i>D12A6N</i>	.940	
<i>Dealing with Emotions</i>	<i>D12A7N</i>	.899	
<i>Internal Triggers</i>	<i>D12A8N</i>	.740	.507
<i>External Triggers</i>	<i>D12A9N</i>	.739	.466
<i>Control Impulses</i>	<i>D12A10N</i>	.574	
<i>Control Aggression</i>	<i>D12A11N</i>	.553	

A seven-factor solution for Groups 2 and 5 was retained. Similar to the above results, the convergent and divergent validity of most items was supported (see Table 8). However, ‘Level of Family Conflict’ and ‘Parental Authority’ from domain 7 cross-loaded onto the factor in domain 11 while loading on two factors in their own domain. The item for ‘Control Aggression’ from domain 12 loaded onto domain 11 instead of domain 12. This evidence may suggest the relocation of ‘Control Aggression’ from domain 12 to domain 11.

Table 9 EFA on Group 3 (D8) + Group 4 (D9 D10)

Item	Var Name	F1	F2	F3	F4	F5	F6
<i>Marijuana Use</i>	<i>D8B3_1</i>	.991					
<i>Meth use</i>	<i>D8B3_2</i>	.856					
<i>Cocaine/Crack Use</i>	<i>D8B3_3</i>	.911					
<i>Heroin/Opiate Use</i>	<i>D8B3_4</i>	.836					
<i>Other Drug Use</i>	<i>D8B3_5</i>	.718					
<i>Alcohol Disrupts Ed</i>	<i>D8B1_2</i>		.954				
<i>Alcohol Family Conflict</i>	<i>D8B1_3</i>		.974				
<i>Alcohol Interferes Pro-Social Friends</i>	<i>D8B1_4</i>		.973				
<i>Alcohol Use Health Problems</i>	<i>D8B1_5</i>		.885		.350		
<i>Alcohol Contributes Criminal Behavior</i>	<i>D8B1_6</i>		.979				
<i>Alcohol Tolerance</i>	<i>D8B1_7</i>		.601	.630			
<i>Alcohol Withdrawal</i>	<i>D8B1_8</i>		.486	.622			
<i>Drug Disrupts Ed</i>	<i>D8B2_2</i>	.467	.550				
<i>Drug Family Conflict</i>	<i>D8B2_3</i>	.481	.541				
<i>Drug Interferes Pro-Social Friends</i>	<i>D8B2_4</i>	.430	.556				
<i>Drug Use Health Problems</i>	<i>D8B2_5</i>		.626		.356		
<i>Drug Contributes Criminal Behavior</i>	<i>D8B2_6</i>	.499	.499				
<i>Drug Tolerance</i>	<i>D8B2_7</i>	.457		.668			
<i>Drug Withdrawal</i>	<i>D8B2_8</i>	.397		.759			
<i>Treatment</i>	<i>D8B4</i>	.759					
<i>Suicide Ideation</i>	<i>D9B1_8N</i>					.654	
<i>ADD/ADHD</i>	<i>D9B2N</i>					.737	

<i>Treatment</i>	<i>D9B3N</i>		.925
<i>Medication</i>	<i>D9B4N</i>		.913
<i>MH Issue Interfere Working with Youth</i>	<i>D9B5N</i>		.782
<i>Primary Criminal Emotion</i>	<i>D10.A1N</i>		.316
<i>Primary Criminal Purpose</i>	<i>D10.A2N</i>		.598
<i>Optimism</i>	<i>D10.A3N</i>		.624
<i>Impulsive</i>	<i>D10.A4N</i>		.657
<i>Belief in Control Actions</i>	<i>D10.A5N</i>	.437	.676
<i>Empathy</i>	<i>D10.A6N</i>		.790
<i>Respect Property</i>	<i>D10.A7N</i>		.706
<i>Respect Authority</i>	<i>D10.A8N</i>		.783
<i>Pro-Social Conventions</i>	<i>D10.A9N</i>		.495
<i>Accepts Responsibility</i>	<i>D10.A10N</i>		.726
<i>Belief in Success</i>	<i>D10.A11N</i>	.472	.676

For Groups 3 and 4, a six-factor solution was retained. As presented in Table 9, most of the items from domains 8, 9 and 10 demonstrated convergent and divergent validity at the item level. There are four items, including ‘Alcohol Use Health Problems’, ‘Drug Use Health Problems’, ‘Belief in Control Actions’ and ‘Belief in Success’, that loaded onto their own proposed domains *and* converged on a new factor (F4). However, their cross-loadings were weak (.350, .356, .437 and .472) compared to their own factor loadings (.885, .626, .676 and .676). Given the strong loading and relatively weak cross-loading, this evidence may only suggest correlated residuals among these items.

Table 10 EFA on Group 3 (D8) + Group 5 (D11 D12)

Item	Var Name	F1	F2	F3	F4	F5	F6	F7
<i>Marijuana Use</i>	<i>D8B3_1</i>	1.032						
<i>Meth use</i>	<i>D8B3_2</i>	.737						
<i>Cocaine/ Crack Use</i>	<i>D8B3_3</i>	.699						.343
<i>Heroin/ Opiate Use</i>	<i>D8B3_4</i>	.721						
<i>Other Drug Use</i>	<i>D8B3_5</i>	.600						
<i>Alcohol Disrupts Ed</i>	<i>D8B1_2</i>		.905					
<i>Alcohol Family Conflict</i>	<i>D8B1_3</i>		.917					
<i>Alcohol Interferes Pro-Social Friends</i>	<i>D8B1_4</i>		.894					
<i>Alcohol Use Health Problems</i>	<i>D8B1_5</i>		.897		.473			
<i>Alcohol Contributes Criminal Behavior</i>	<i>D8B1_6</i>		.888					
<i>Alcohol Tolerance</i>	<i>D8B1_7</i>		.628	.632				
<i>Alcohol Withdrawal</i>	<i>D8B1_8</i>		.628	.613				
<i>Drug Disrupts Ed</i>	<i>D8B2_2</i>	.635	.379					
<i>Drug Family Conflict</i>	<i>D8B2_3</i>	.626	.381					
<i>Drug Interferes Pro-Social Friends</i>	<i>D8B2_4</i>	.582	.391					
<i>Drug Use Health Problems</i>	<i>D8B2_5</i>	.388	.422		.427			
<i>Drug Contributes Criminal Behavior</i>	<i>D8B2_6</i>	.642	.309					
<i>Drug Tolerance</i>	<i>D8B2_7</i>	.557		.666				
<i>Drug Withdrawal</i>	<i>D8B2_8</i>	.561		.751				
<i>Treatment</i>	<i>D8B4</i>	.737						
<i>Frustration Tolerance</i>	<i>D11A1N</i>					.659		

<i>Hostile Perception</i>	<i>D11.A2N</i>	.522		
<i>Belief in Yelling</i>	<i>D11.A3N</i>	.880		
<i>Belief in Fighting</i>	<i>D11.A4N</i>	.862		
<i>Violent Events Reported</i>	<i>D11.A5N</i>	.625		
<i>Control Sexual Aggression</i>	<i>D11.A6N</i>	--		
<i>Consequential Thinking</i>	<i>D12.A1N</i>	.735		
<i>Goal Setting</i>	<i>D12.A2N</i>	.623		
<i>Problem Solving</i>	<i>D12.A3N</i>	.883		
<i>Situational Perception</i>	<i>D12.A4N</i>	.894		
<i>Dealing with Others</i>	<i>D12.A5N</i>	.881		
<i>Difficult Situations</i>	<i>D12.A6N</i>	.386	.893	
<i>Dealing with Emotions</i>	<i>D12.A7N</i>	.365	.863	
<i>Internal Triggers</i>	<i>D12.A8N</i>	.902	.465	
<i>External Triggers</i>	<i>D12.A9N</i>	.887	.405	
<i>Control Impulses</i>	<i>D12.A10N</i>	.585		
<i>Control Aggression</i>	<i>D12.A11N</i>	.538		

A seven-factor solution was retained for Groups 3 and 5. As presented in Table 10, most of the items loaded onto factors within their own domains, demonstrating convergent and divergent validity at the item level. Yet, ‘Heroin/Opiate Use’ and ‘Internal Triggers’ and ‘External Triggers’ cross-loaded onto a new factor (F7) while also loading onto factors within their own domains. The cross-loadings are relatively weak (.343, .465 and .405) compared to their loadings (.699, .902 and .887). In a similar vein, ‘Alcohol Use Health Problems’ and ‘Drug Use Health Problems’ from domain 8 and ‘Difficult Situations’ and ‘Dealing with Emotions’ from domain 12 cross-loaded on a new factor while loaded onto the factors within their own domains. These cross-loadings (.473, .427, .386 and .365) are, again, relatively weak compared to their loadings (.897, .422, .893 and .863). Therefore, with weak cross-loadings, exacting a new factor may be meaningless.

Table 11 EFA on Group 4 (D9 D10) + Group 5 (D11 D12)

Item	Var Name	F1	F2	F3	F4	F5
<i>Suicide Ideation</i>	<i>D9B1_8N</i>	.664				
<i>ADD/ADHD</i>	<i>D9B2N</i>	.740				
<i>Treatment</i>	<i>D9B3N</i>	.939				
<i>Medication</i>	<i>D9B4N</i>	.932				
<i>MH Issue Interfere Working with Youth</i>	<i>D9B5N</i>	.797				
<i>Primary Criminal Emotion</i>	<i>D10.A1N</i>		.414			
<i>Primary Criminal Purpose</i>	<i>D10.A2N</i>		--			
<i>Optimism</i>	<i>D10.A3N</i>		.726			
<i>Impulsive</i>	<i>D10.A4N</i>		.384			
<i>Belief in Control Actions</i>	<i>D10.A5N</i>		.591			
<i>Empathy</i>	<i>D10.A6N</i>		.812			
<i>Respect Property</i>	<i>D10.A7N</i>		.664			
<i>Respect Authority</i>	<i>D10.A8N</i>		.678			
<i>Pro-Social Conventions</i>	<i>D10.A9N</i>		.761			
<i>Accepts Responsibility</i>	<i>D10.A10N</i>		.464			
<i>Belief in Success</i>	<i>D10.A11N</i>		.700			
<i>Frustration Tolerance</i>	<i>D11.A1N</i>			.549		
<i>Hostile Perception</i>	<i>D11.A2N</i>		.569	.323		
<i>Belief in Yelling</i>	<i>D11.A3N</i>			.830		
<i>Belief in Fighting</i>	<i>D11.A4N</i>			.860		
<i>Violent Events Reported</i>	<i>D11.A5N</i>			.622		
<i>Control Sexual Aggression</i>	<i>D11.A6N</i>			--		

<i>Consequential Thinking</i>	<i>D12A1N</i>		.801
<i>Goal Setting</i>	<i>D12A2N</i>	.473	.522
<i>Problem Solving</i>	<i>D12A3N</i>		.928
<i>Situational Perception</i>	<i>D12A4N</i>		.924
<i>Dealing with Others</i>	<i>D12A5N</i>		.922
<i>Difficult Situations</i>	<i>D12A6N</i>		.919
<i>Dealing with Emotions</i>	<i>D12A7N</i>		.890
<i>Internal Triggers</i>	<i>D12A8N</i>		.924 .398
<i>External Triggers</i>	<i>D12A9N</i>		.909 .372
<i>Control Impulses</i>	<i>D12A10N</i>		.606
<i>Control Aggression</i>	<i>D12A11N</i>		.529

As shown in Table 1, the EFA results suggested a five-factor solution for Groups 4 and 5. However, the ‘Primary Criminal Purpose’ and ‘Control Sexual Aggression’ items did not load onto any of the factors across the four domains. The item ‘Hostile Perception’ from domain 11 cross-loaded onto factor F2 in domain 10. Because its cross-loadings (.569) is stronger than its loading (.323), this item will be relocated to domain 10, where its dimensionality will be further examined via a MGCFA analysis. The findings also suggested that ‘Control Aggression’ be relocated from domain 12 to domain 11. Yet, this item also cross-loaded on factor F2 in domain 10 while loading onto factor F4 in domain 12. This evidence suggests retaining this item within domain 12 because of its relatively weak loading (.473) and relatively strong loading (.522). Now that convergent and divergent validity have been examined, we move next to the internal latent structure.

Internal latent Structure

After examining the evidence of the convergent/divergent validity at the item level, and relocating items based on the suggested factorial pattern, further EFA analyses were conducted within domains to inform the dimensionality of each independent domain. Then, MGCFA with omnibus measurement invariance and higher order modeling tests were conducted to confirm the internal latent structure for each domain.

School - Domain 3

As shown in Tables 12.0 and 12.1, the EFA results suggested a one factor model. However, the MGCFA based on the one factor solution resulted in a poor model fit. Four correlated residuals were added to address localized ill fit. Therefore, the one factor solution was not retained, and a four-factor model was, as the model fit indices statistics were much improved for the latter model (see Model A1 in Table 12.2). According to the suggested four-factor pattern in Table 12.1, the school scale passed all measurement invariance tests from Model A1 to Model A7. A second order factor, *School*, was exacted and is considered a gender-invariant, second order, parallel scale at all levels. Again, this scale consists of four sub-scales/factors. The visual representation of the final scale is presented in Figure 1, and item descriptions are presented in Table 12.3.

Table 12.0 EFA on Domain 3 - School

Model	<i>df</i>	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor*	35	.975	.967	.149 [.147 - .150]	.062	6.669
2 Factors	26	.991	.984	.104 [.102 - .105]	.033	.917
3 Factors	18	.995	.987	.094 [.092 - .096]	.026	.591
4 Factors	11	.999	.997	.046 [.044 - .049]	.011	.512
5 Factors	5	1.000	1.000	.033 [.032 - .033]	.123	.338
6 Factors	0	N/A	N/A	N/A	N/A	.290

*1 Factor solution is not retained due to poor RMSEA value in CFA and, multiple (n=4) correlated residuals have to be added in order to address localized ill fit issue.

Table 12.1 EFA – School

<i>Item</i>	<i>Var Name</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>
<i>Enrollment</i>	<i>D3B1AN</i>	.824	--	--	--
<i>Involvement</i>	<i>D3B6N</i>	.481	.394	--	--
<i>Attendance</i>	<i>D3B9N</i>	.547	--	--	--
<i>Value in Ed</i>	<i>D3B3A1</i>	--	.771	--	--
<i>Encourage</i>	<i>D3B4N</i>	--	.772	--	--
<i>Staff Comfort</i>	<i>D3B5N</i>	--	.828	--	--
<i>Conduct</i>	<i>D3B7N</i>	--	--	.779	--
<i>Suspend/Expel</i>	<i>D3B8N</i>	--	--	.856	--
<i>Performance</i>	<i>D3B10N</i>	--	--	--	.874
<i>Assess Stay</i>	<i>D3B11N</i>	--	.463	--	.453

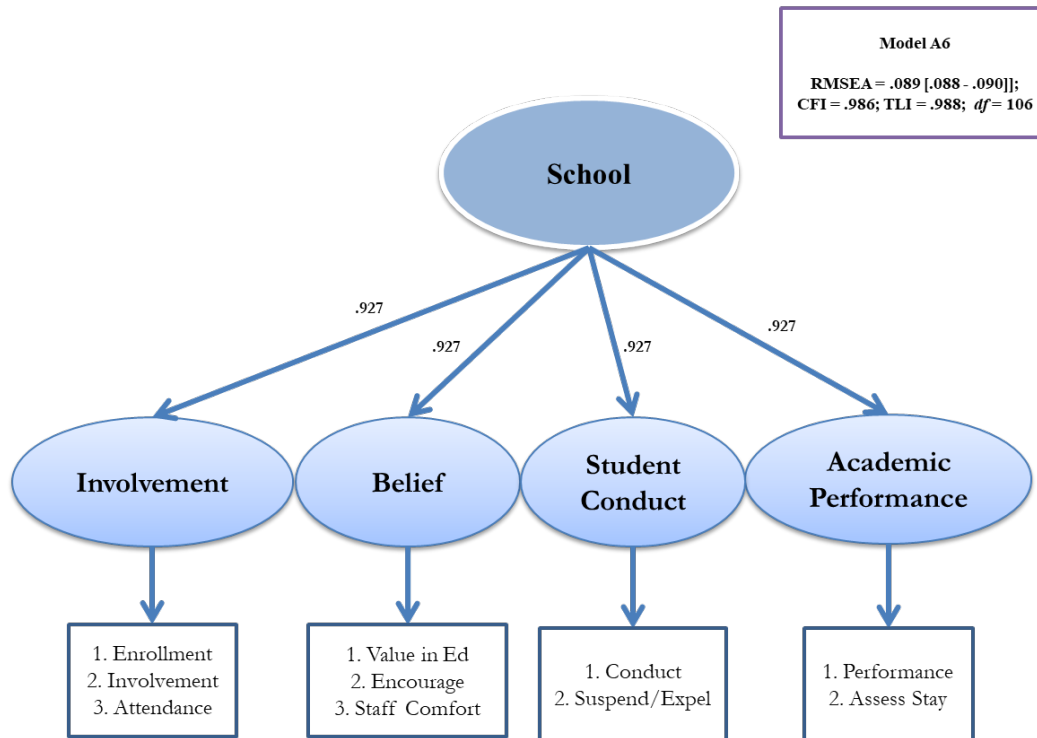
Table 12.2 Omnibus Measurement Invariance and Structural Tests – School

Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
A1	MGCFA - Configural Model	58	.995	.992	.075 [.073 - .076]	--	--	--	--
A2	MGCFA - Weak Invariant Model	68	.997	.995	.056 [.056 - .057]	10	+ .002	+ .003	Yes
A3	MGCFA - Strong Invariant Model	86	.996	.996	.053 [.052 - .054]	18	.001	+ .001	Yes
A4	Second Order Model	93	.994	.995	.061 [.059 - .062]	7	.002	.001	Yes
A5	First Order within Factor Item Invariance Model	99	.988	.989	.085 [.084 - .086]	6	.006	.006	Yes
A6	First Order Factor loading Invariance Model	106	.986	.988	.089 [.088 - .090]	7	.002	.001	Yes
A7	One Group CFA Model	31	.995	.992	.072 [.070 - .073]	--	--	--	--

Table 12.3 School (Model A6)

Factor Loading		Item Loading		Item Description	Var Name
Male	Female	Male	Female		
<i>Involvement</i> (.927)	<i>Involvement</i> (.927)	.899	.848	Youth's current school enrollment status, regardless of attendance (A1)	<i>D3B1AN</i>
		.828	.848	Youth's involvement in school activities during most recent term (N)	<i>D3B6N</i>
		.783	.848	Youth's attendance in the most recent term (N)	<i>D3B9N</i>
<i>Belief</i> (.927)	<i>Belief</i> (.927)	.957	.932	Youth believes there is value in getting an education (A1):	<i>D3B3A1</i>
		.948	.932	Youth believes school provides an encouraging environment for him or her (A1)	<i>D3B4N</i>
		.667	.932	Teachers, staff, or coaches the youth likes or feels comfortable talking with (N)	<i>D3B5N</i>
<i>Student Conduct</i> (.927)	<i>Student Conduct</i> (.927)	.771	.844	Youth conduct in the most recent term (N)	<i>D3B7N</i>
		.854	.844	Number of expulsions and suspensions in the most recent term (N)	<i>D3B8N</i>
<i>Academic Performance</i> (.927)	<i>Academic Performance</i> (.927)	.810	.880	Youth's academic performance in the most recent term (N)	<i>D3B10N</i>
		.945	.880	Interviewer's assessment of likelihood the youth will stay in and graduate from high school or an equivalent vocational school (N)	<i>D3B11N</i>

Figure 1. Criminogenic Needs - School



Association - Domain 4, 5, and 6

As shown in Table 13.0, a four-factor solution was retained. Tables 13.1 and 13.2 present findings from the structural and measurement tests. The items 'Unstructured Activity', 'Employment Status' and 'Romantic Relationship' were removed from the final the model because they were weakly associated with other items in this scale. The second order model passed all invariance tests and second order modeling tests. Therefore, a second order, gender-invariant, parallel scale at all levels was exacted. This scale was termed *Association*. The visual representation of the final scale is presented in Figure 2, and item descriptions are presented in Table 13.3.

Table 13.0 EFA on Domain 4, 5, 6 - Use of Time, Employment & Relationship

Model	<i>df</i>	CFI	TLI	RMSEA [90% C.I.]	SRMR	<i>Eigenvalues</i>
1 Factor*	27	.982	.977	.225 [.224 - .226]	.206	3.743
2 Factors	19	.992	.985	.180 [.178 - .182]	.119	1.651
3 Factors	12	.997	.991	.138 [.136 - .141]	.070	1.405
4 Factors	6	1.000	1.000	.015 [.012 - .018]	.005	.845
5 Factors	1	1.000	1.000	.010 [.003 - .019]	.001	.504

Table 13.1 EFA on Use of Time, Employment & Relationship

<i>Item</i>	<i>Var Name</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>
<i>Structured Activity</i>	<i>D4B1N</i>	.986			
<i>Type of Structured Activity</i>	<i>D4B2N</i>	.967			
<i>Unstructured Activity</i>	<i>D5B1N</i>		.339		
<i>Understand Job Maintain</i>	<i>D5B2N</i>		2.004		
<i>Employment Status</i>	<i>D6B1N</i>			.710	
<i>Positive Adult</i>	<i>D6B2N</i>			.891	
<i>Community Ties</i>	<i>D6B3N</i>				.607
<i>Friends/Companions</i>	<i>D6B5N</i>				.895
<i>Admires/Emulates</i>	<i>D6B6N</i>				.840

Table 13.2 Omnibus Measurement Invariance and Structural Tests – Use of Time, Employment & Relationship

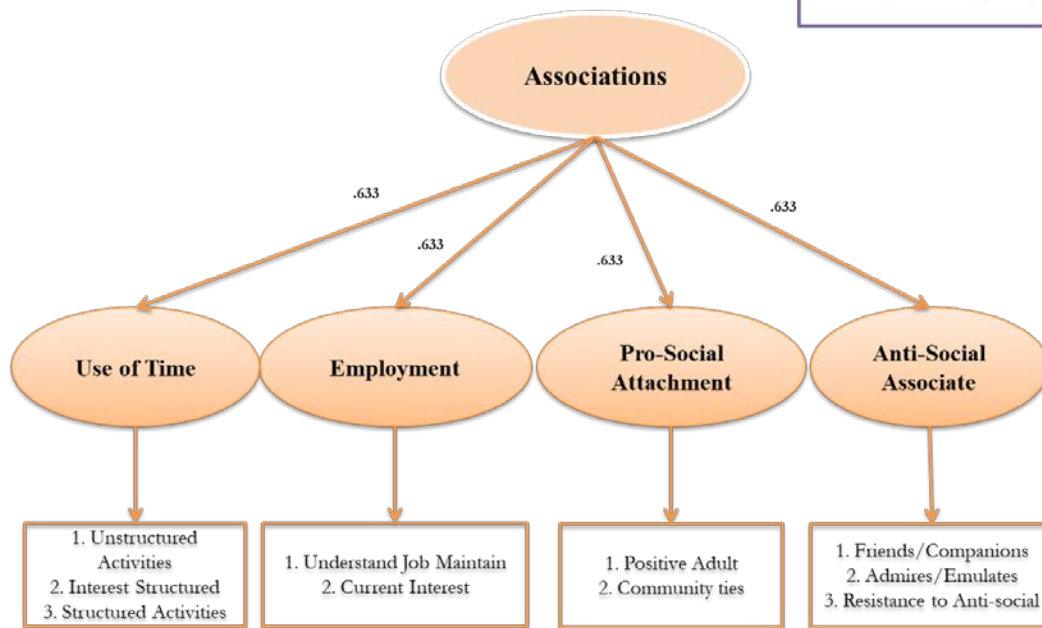
Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
B1*	MGCFA - Configural Model	42	1.000	1.000	.028 [.026 - .029]	--	--	--	--
B2	MGCFA - Weak Invariant Model	51	1.000	1.000	.025 [.024 - .027]	9	.000	.000	Yes
B3	MGCFA - Strong Invariant Model	59	1.000	1.000	.028 [.026 - .029]	8	.000	.000	Yes
B4	First Order within Factor Item Invariance Model	64	.999	.999	.041 [.039 - .042]	5	.001	.001	Yes
B5	Second Order Tau Model	78	.998	.998	.062 [.061 - .063]	14	.001	.001	Yes
B6	One Group CFA Final Model	23	1.000	.999	.039 [.037 - .040]	--	--	--	--

* D5B3N was not retained in the final model because its weak correlation with other factors and item; D6B4N was not retained in the model because of its weak loading

Table 13.3 Use of Time, Employment & Relationship (Model B5)

Factor Loading		Item Loading		Item Description	Var
Male	Female	Male	Female		Name
<i>Use of Time</i>	<i>Use of Time</i>	.998	.983	Current interest and involvement in structured recreational activities	<i>D4B1N</i>
(.633)	(.633)	.970	.983	Types of structured recreational activities in which youth currently participates (N)	<i>D4B2N</i>
<i>Employment</i>	<i>Employment</i>	.782	.752	Understanding of what is required to maintain a job	<i>D5B1N</i>
(.633)	(.633)	.711	.752	Current interest in employment	<i>D5B2N</i>
<i>Pro-Social</i>	<i>Pro-Social</i>	.760	.846	Current positive adult non-family relationships not connected to school or employment	<i>D6B1N</i>
<i>Attachment</i>	<i>Attachment</i>	.956	.846	Current pro-social Community Ties	<i>D6B2N</i>
(.633)	(.633)				
<i>Anti-Social</i>	<i>Anti-Social</i>	.676	.814	Current friends/ companions youth actually spends time with	<i>D6B3N</i>
<i>Associate</i>	<i>Associate</i>	.898	.814	Currently admires/ emulates anti-social peers	<i>D6B5N</i>
(.633)	(.633)	.823	.814	Current resistance to anti-social peer influence	<i>D6B6N</i>

Figure 2. Criminogenic Needs - Association



Family - Domain 7

As presented in Table 14.0, a five-factor solution was retained. As indicated in Table 14.1, the factorial pattern is clear for most items. Three items, including 'Willing to Support', 'Family Member Relationships' and 'Parental Authority' cross-loaded on other factors. As the differences in the strength of the loadings and cross-loadings are not substantial (.503 *vs* .402; .384 *vs* .359; .511 *vs* .421), the items were retained in their proposed domains. Based on the strength of the correlational relationship among the five factors, a third order factor, called *Family Support & Conflict*, was exacted. The Family Member Problem factor was not considered a part of the third order factor model, as it shared little common variance with other factors with an *r* of .308 for the female sample and an *r* of .354 for the male sample. Additionally, this factor was not retained because the items are considered historical rather than dynamic. As displayed in Table 14.2, the *Family Support & Conflict* passed all the invariance and higher order modeling tests and is considered a gender-invariant, third order factor. The visual representation of the final scale is presented in Figure 3, and item descriptions are displayed in Table 14.3.

Table 14.0 EFA on Domain 7- Family

Model	<i>df</i>	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	104	.885	.868	.104 [.103 - .105]	.093	5.192
2 Factors	89	.926	.900	.091 [.090 - .091]	.066	1.874
3 Factors	75	.970	.952	.063 [.062 - .064]	.039	1.550
4 Factors*	62	.987	.974	.046 [.045 - .047]	.025	1.135
5 Factors	50	.995	.988	.031 [.030 - .032]	.017	.878
6 Factors	N/A	N/A	N/A	N/A	N/A	.801

*4-Factor Solution was not retained because the factor loadings are weak in CFA models

Table 14.1 EFA on Family

Item	Var Name	F1	F2	F3	F4	F5
<i>Annual Income</i>	<i>D7B1N</i>	.520				
<i>Risk 'Living With' Relationship</i>	<i>D7B2N</i>	.439				
<i>Family Jail/Prison</i>	<i>D7B3N</i>		.776			
<i>Parent Problem</i>	<i>D7B4N</i>		.729			
<i>Sibling Problem</i>	<i>D7B5N</i>		.422			
<i>.Support Network</i>	<i>D7B6N</i>			.665		
<i>Willing to Support</i>	<i>D7B7N</i>			.503		.420
<i>Opportunities for Family Activities</i>	<i>D7B8N</i>			.789		
<i>Run away/kicked out</i>	<i>D7B9N</i>				.593	
<i>Family Member Relationships</i>	<i>D7B10N</i>			.384	.359	
<i>Level of Family Conflict</i>	<i>D7B11N</i>				.610	
<i>Parental Supervision</i>	<i>D7B12N</i>					.784
<i>Parental Authority</i>	<i>D7B13</i>				.511	.421
<i>Consistent Punishment</i>	<i>D7B14N</i>					.851
<i>Consistent Rewards</i>	<i>D7B15N</i>					.640
<i>Parental Characterization Youth's Behavior</i>	<i>D7B16N</i>					.566

Table 14.2 Omnibus Measurement Invariance and Structural Tests – Family (Model C10)

Model	Test of Structure/Invariance	df	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
C1*	MGCFA - Configural Model	188	.944	.929	.076 [.075 - .077]	--	--	--	--
C2	MGCFA - Weak Invariant Model	235	.946	.945	.067 [.066 - .068]	47	+.002	+.016	Yes
C3	MGCFA - Strong Invariant Model	230	.954	.952	.063 [.062 - .063]	5	+.008	+.007	Yes
C4	First Order within Factor Item Invariance Model – F1	231	.945	.943	.068 [.067 - .069]	1	.009	.009	Yes
C5	First Order within Factor Item Invariance Model – F2	233	.943	.939	.070 [.070 - .071]	2	.002	.004	Yes
C6	First Order within Factor Item Invariance Model – F3	235	.940	.946	.066 [.065 - .067]	2	.003	+.007	Yes
C7	First Order within Factor Item Invariance Model – F4	237	.941	.940	.070 [.069 - .071]	2	+.001	.006	Yes
C8	First Order within Factor Item Invariance Model – F5	241	.931	.932	.074 [.074 - .075]	4	.010	.008	Yes
C9	Second Order Tau Model (F3 + F5)	258	.923	.928	.076 [.076 - .077]	17	.008	.004	Yes
C10	Third Order Tau Model F1 + F4 + (F3 + F5)	260	.928	.934	.073 [.073 - .074]	2	+.005	+.006	Yes
C11	Final One Group CFA Model	101	.935	.923	.079 [.079 - .080]	--	--	--	--

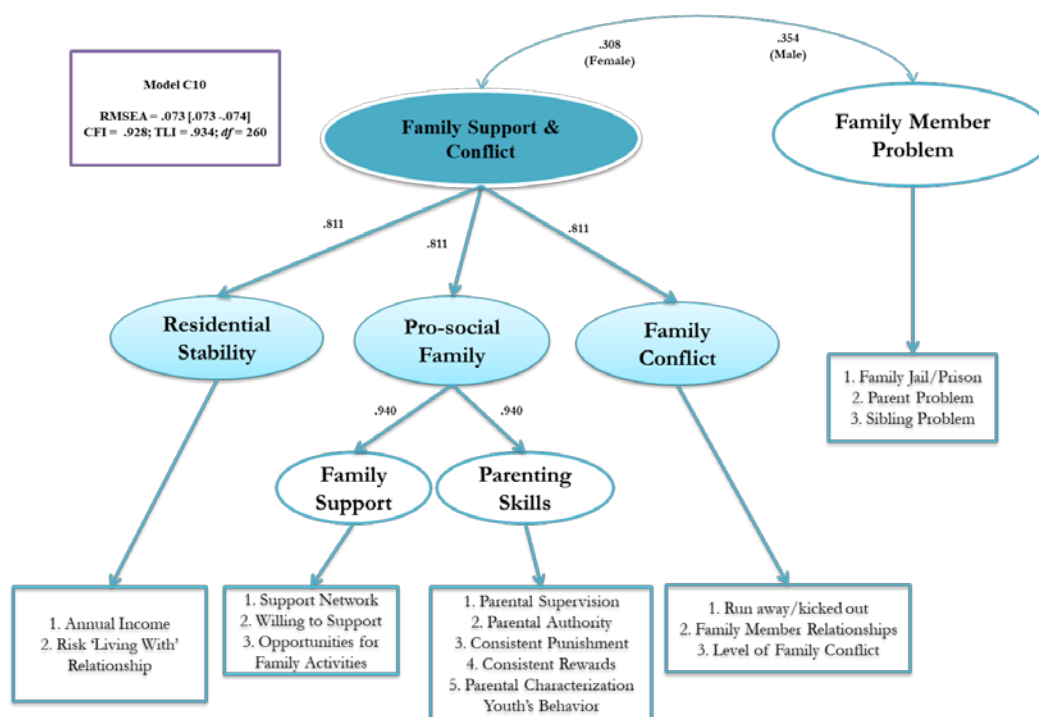
* D7B13 was retained in F5 because the CFA confirmed that it has strong relationship with other item from F5 instead of F3.

Table 14.3 Family (Model C10)

Second Order Factor Loading		First Order Factor Loading		Item Loading		Item Description	Var Name
Male	Female	Male	Female	Male	Female		
<i>Residential Stability</i>	<i>Residential Stability</i>	<i>Residential Stability</i>	<i>Residential Stability</i>	.310	.373	Living	<i>D7B1N</i>
(.811)	(.811)	(--)	(--)	.449	.373	Annual combined income of youth and family	<i>D7B2N</i>
<i>Family</i>	<i>Family</i>	<i>Family</i>	<i>Family</i>	.689	.582	Computed Binary - Family currently in jail	<i>D7B3N</i>
<i>Member Problem</i>	<i>Member Problem</i>	<i>Member Problem</i>	<i>Member Problem</i>	.744	.582	Computed – Parent Problem N	<i>D7B4N</i>
				.575	.582	Computed Item – Sib Problem N	<i>D7B5N</i>

(-)	(-)	(-)	(-)				
<i>Pro-social Family</i>	<i>Pro-social Family</i>	<i>Family Support</i>	<i>Family Support</i>	.692	.816	Support network for family	<i>D7B6N</i>
<i>(.811)</i>	<i>(.811)</i>	<i>(.940)</i>	<i>(.940)</i>	.895	.816	Family willingness to help support of youth	<i>D7B7N</i>
				.795	.816	Family provides opportunities for youth to participate in family activities and decisions	<i>D7B8N</i>
<i>Family</i>	<i>Family</i>	<i>Family</i>	<i>Family</i>	.450	.431	Youth has run away or been kicked out of home	<i>D7B9N</i>
<i>Conflict</i>	<i>Conflict</i>	<i>Conflict</i>	<i>Conflict</i>	.465	.431	Computed Item - CxFamily_RelationshipN	<i>D7B10N</i>
<i>(.811)</i>	<i>(.811)</i>	<i>(-)</i>	<i>(-)</i>	.523	.431	Level of conflict between parents, between youth and parents, among siblings	<i>D7B11N</i>
				.853	.742	Parental supervision	<i>D7B12N</i>
<i>Pro-social Family</i>	<i>Pro-social Family</i>	<i>Parenting Skills</i>	<i>Parenting Skills</i>	.669	.742	Parental authority and control	<i>D7B13</i>
<i>(.811)</i>	<i>(.811)</i>	<i>(.940)</i>	<i>(.940)</i>	.703	.742	Consistent appropriate punishment for bad behavior	<i>D7B14N</i>
				.817	.742	Consistent appropriate rewards for good behavior	<i>D7B15N</i>
				.531	.742	Parental characterization of youth's anti-social behavior	<i>D7B16N</i>

Figure 3. Criminogenic Needs - Family Support & Conflict



As shown in Table 15.0, a four-factor solution offered the best fit. Moreover, Table 15.1 suggests a 3-factor model with an additional bi-factor (*Alcohol Only*). Following an MGCFA, a second order factor (*Alcohol & Drug Needs*) was exacted by using the three factors. The bi-factor *Alcohol Only* was not retained in the second order factor model, given it shares little common variance with Alcohol & Drug Needs with an r of $-.312$ for the female and an r of $-.346$ for the male sample. Consequently, *Alcohol & Drug Needs* was considered as a second order, gender-invariant, parallel scale. The visual representation of the final scale is presented in Figure 4 (the identified bi-factor is not presented in the figure), and item descriptions are presented in Table 15.3.

Table 15.0 EFA on Domain 8 - Alcohol and Drugs

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	170	.950	.944	.077 [.076 - .077]	.149	11.711
2 Factors	151	.973	.966	.060 [.060 - .061]	.121	2.086
3 Factors	133	.982	.975	.052 [.051 - .052]	.069	1.795
4 Factors	116	.987	.979	.047 [.046 - .048]	.053	1.132
5 Factors	100	.990	.981	.045 [.044 - .046]	.045	.827

Table 15.1 EFA on Alcohol and Drugs

Item	Var Name	F1	F2	F3	F4
<i>Marijuana Use</i>	<i>D8B4</i>	.952			
<i>Meth use</i>	<i>D8B3_1</i>	1.111			
<i>Cocaine/Crack Use</i>	<i>D8B3_2</i>		.707		
<i>Heroin/Opiate Use</i>	<i>D8B3_3</i>		.700		
<i>Other Drug Use</i>	<i>D8B3_4</i>		.770		
<i>Alcohol Disrupts Ed</i>	<i>D8B3_5</i>		.527		
<i>Alcohol Family Conflict</i>	<i>D8B1_2</i>	.596		.532	
<i>Alcohol Interferes Pro-Social Friends</i>	<i>D8B1_3</i>	.615		.531	
<i>Alcohol Use Health Problems</i>	<i>D8B1_4</i>	.681		.469	
<i>Alcohol Contributes Criminal Behavior</i>	<i>D8B1_5</i>		.488	.776	
<i>Alcohol Tolerance</i>	<i>D8B1_6</i>	.553		.530	
<i>Alcohol Withdrawal</i>	<i>D8B1_7</i>			.441	.705
<i>Drug Disrupts Ed</i>	<i>D8B1_8</i>			.527	.693
<i>Drug Family Conflict</i>	<i>D8B2_2</i>	.679			
<i>Drug Interferes Pro-Social Friends</i>	<i>D8B2_3</i>	.700			
<i>Drug Use Health Problems</i>	<i>D8B2_4</i>	.755			
<i>Drug Contributes Criminal Behavior</i>	<i>D8B2_5</i>		.617	.348	
<i>Drug Tolerance</i>	<i>D8B2_6</i>	.626			
<i>Drug Withdrawal</i>	<i>D8B2_7</i>		.328		.784
<i>Treatment</i>	<i>D8B2_8</i>				.903

Table 15.2 Omnibus Measurement Invariance and Structural Tests – Alcohol and Drugs

Model	Test of Structure/Invariance	df	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
D1	MGCFA - Configural Model	314	.983	.979	.046 [.046 - .047]	--	--	--	--
D2	MGCFA - Weak Invariant Model	341	.987	.985	.039 [.039 - .040]	27	+.004	+.006	Yes
D3*	MGCFA - Strong Invariant Model	339	.984	.982	.043 [.043 - .044]	25	+.001	+.003	Yes
D4	Second Order Model - Tau	351	.984	.983	.042 [.041 - .043]	12	.000	+.001	Yes

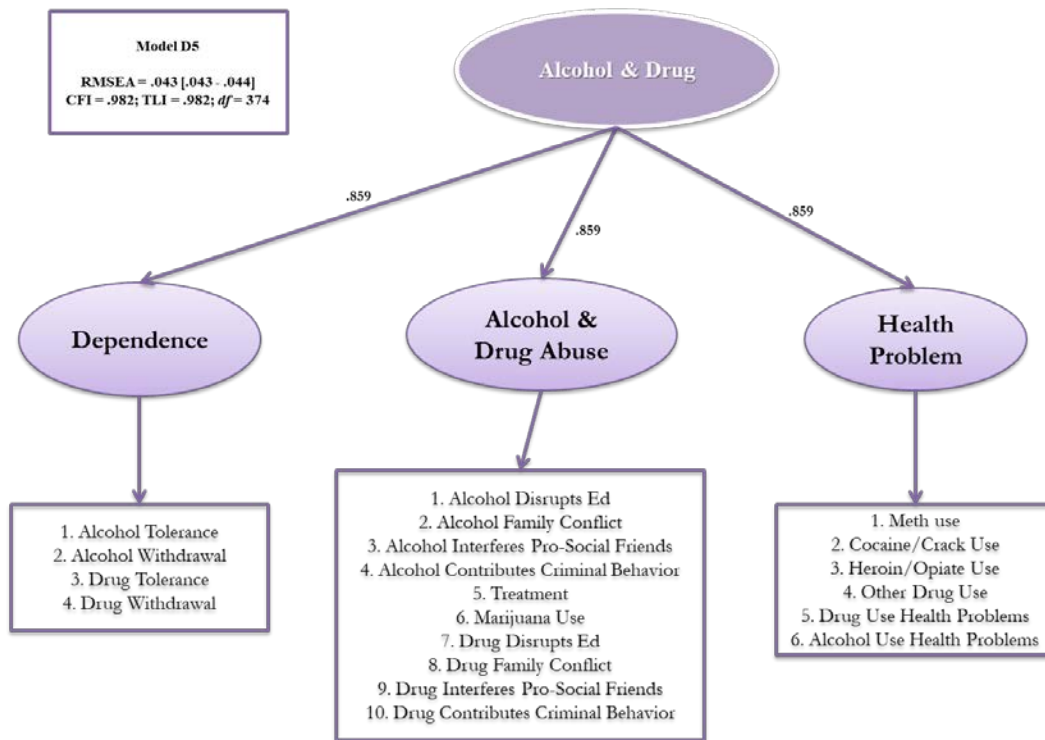
D5	First Order within Factor Item Invariance Model	374	.982	.982	.043 [.043 - .044]	23	.002	.001	Yes
D6	Final One Group CFA Model	161	.983	.980	.046 [.045 - .046]	--	--	--	--

*Model A1 instead of A2 was used for model comparison because Model A3 (a bi-factor model) has less χ^2 than its weak group invariance model; the model was compared with A1 to determine the level of model detrimental fit.

Table 15.3 Alcohol and Drugs (Model D5)

Factor		Item		Item Description	Bi-Factor		Var
Loading		Loading			Item Loading		Name
Male	Female	Male	Female		Male	Female	
Alcohol & Drug Abuse (.859)	Alcohol & Drug Abuse (.859)	.845	.900	Alcohol/drug treatment program participation	--	--	<i>D8B4</i>
		.991	.900	Marijuana	--	--	<i>D8B3_1</i>
		.927	.900	Alcohol disrupts education	.604	.587	<i>D8B1_2</i>
		.927	.900	Alcohol causes family conflict	.604	.587	<i>D8B1_3</i>
		.915	.900	Alcohol interferes with pro-social friendships	.596	.587	<i>D8B1_4</i>
		.824	.900	Alcohol contributes criminal behavior	.537	.587	<i>D8B1_6</i>
		.919	.900	Drug disrupts education	--	--	<i>D8B2_2</i>
		.922	.900	Drug causes family conflict	--	--	<i>D8B2_3</i>
		.901	.900	Drug interferes with pro-social friendships	--	--	<i>D8B2_4</i>
		.842	.900	Drug contributes criminal behavior	--	--	<i>D8B2_6</i>
Health Problem (.859)	Health Problem (.859)				--	--	
		.811	.815	Amphetamines	--	--	<i>D8B3_2</i>
		.743	.815	Cocaine	--	--	<i>D8B3_3</i>
		.773	.815	Heroin	--	--	<i>D8B3_4</i>
		.782	.815	Other drugs	--	--	<i>D8B3_5</i>
		.976	.815	Alcohol causes health problems	.702	.587	<i>D8B1_5</i>
		.919	.815	Drug causes health problems	--	--	<i>D8B2_5</i>
Dependence (.859)	Dependence (.859)	.984	.941	Needs increasing amounts - Alcohol	.613	.587	<i>D8B1_7</i>
		.960	.941	Experiences withdrawal problems - Alcohol	.598	.587	<i>D8B1_8</i>
		.921	.941	Needs increasing amounts	--	--	<i>D8B2_7</i>
		.926	.941	Experiences withdrawal problems	--	--	<i>D8B2_8</i>

Figure 4. Criminogenic Needs - Alcohol & Drug



Mental Health - Domain 9

The EFA and factorial pattern results for the mental health domain are presented in Tables 16.0 and 16.1, respectively. The findings suggest a one-factor solution. As shown in Table 16.2, the MGCFA analyses with measurement invariance and structural tests confirmed the factor of *Mental Health* as a group invariant scale. However, one item, 'Suicide Ideation', failed the parallel test. The visual representation of the final scale is presented in Figure 5, and item descriptions are presented in Table 16.3.

Table 16.0 EFA on Domain 9 - Mental Health

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	5	.998	.995	.042 [.038 - .045]	.034	3.595
2 Factors	1	1.000	.996	.039 [.031 - .047]	.010	.621
3 Factors	N/A	N/A	N/A	N/A	N/A	.283

Table 16.1 EFA on Mental Health

Item	Var Name	F1
<i>Suicide Ideation</i>	<i>D9B1_8N</i>	.674
<i>ADD/ADHD</i>	<i>D9B2N</i>	.731
<i>Treatment</i>	<i>D9B3N</i>	.935
<i>Medication</i>	<i>D9B4N</i>	.916
<i>MH Issue Interfere Working with Youth</i>	<i>D9B5N</i>	.782

Table 16.2 Omnibus Measurement Invariance and Structural Tests – Mental Health

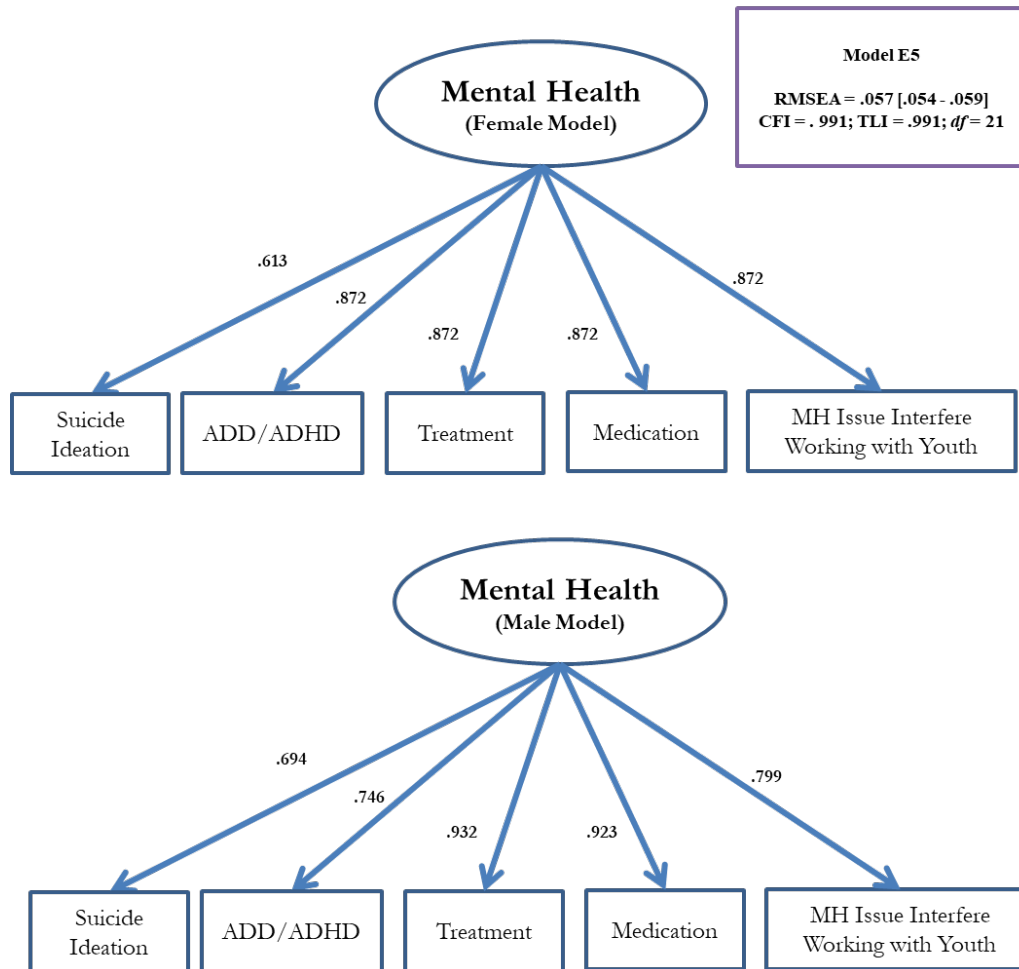
Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δ <i>df</i>	Δ CFI	Δ TLI	Pass?
[90% C.I.]									
E1	MGCFA - Configural Model	10	.998	.996	.038 [.034 - .041]	--	--	--	--
E2	MGCFA - Weak Invariant Model	15	.998	.997	.031 [.028 - .034]	5	.000	.001	Yes
E3	MGCFA - Strong Invariant Model	18	.994	.993	.050 [.048 - .053]	3	.004	.004	Yes
E4	Within Factor Item Invariance Model	22	.982	.981	.078 [.076 - .081]	4	.012	.008	No
E5*	Within Factor Partial Item Invariance Model	21	.991	.991	.057 [.054 - .059]	3	.003	.002	Yes
E6	Final One Group CFA Model	5	.998	.995	.042 [.038 - .045]	--	--	--	--

*In Model E5, the constraint of Item D9B1_8N is turned off, and Model E3 was used for comparison.

Table 16.3 Mental Health (Model E5)

Item Loading		Item Description	<i>Var</i>
Male	Female		<i>Name</i>
.694	.613	Current Suicide Ideation	<i>D9B1_8N</i>
.746	.872	Currently diagnosed with ADD/ADHD:	<i>D9B2N</i>
.932	.872	Mental health treatment currently prescribed, excluding ADD/ADHD treatment	<i>D9B3N</i>
.923	.872	Mental health medication currently prescribed excluding ADD/ADHD medication	<i>D9B4N</i>
.799	.872	Mental health problems currently interfere with working with the youth	<i>D9B5N</i>

Figure 5. Criminogenic Needs – Mental Health



Attitude/Behavior - Domain 10

To evaluate the internal latent structure of the Attitude/Behavior domain, EFA tests were conducted with all the items from domain 10 and one item from domain 11 ('Hostile Perception'), as suggested by previous EFA results. As shown in Table 17.0, a two-factor solution model was retained. According to the suggested factorial pattern displayed in Table 17.1, MGCFA with measurement and higher order modeling tests were conducted. The results are presented in Table 17.2. The findings suggest *Attitude/Behavior* is a gender-invariant, second order scale. The scale passed second order parallel tests; however, one item (Hostile Perception) failed the parallel test at the first order level. The visual representation of the final scale is presented in Figure 6, and item descriptions are displayed in Table 17.3.

Table 17.0 EFA on Domain 10 - Attitude/Behavior

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	54	.964	.955	.073 [.072 - .074]	.043	5.485

2 Factors	43	.982	.972	.058 [.057 - .059]	.030	1.037
3 Factors	33	.989	.979	.050 [.049 - .052]	.024	.928
4 Factors	24	.994	.983	.045 [.043 - .046]	.018	.837
5 Factors	16	.998	.990	.034 [.032 - .036]	.012	.753

Table 17.1 EFA on Attitude/Behavior

Item	Var Name	F1	F2
<i>Primary Criminal Emotion</i>	<i>D10A1N</i>		.325
<i>Primary Criminal Purpose</i>	<i>D10A2N</i>		
<i>Optimism</i>	<i>D10A3N</i>	.701	
<i>Impulsive</i>	<i>D10A4N</i>	.516	
<i>Belief in Control Actions</i>	<i>D10A5N</i>	.870	
<i>Empathy</i>	<i>D10A6N</i>	.786	
<i>Respect Property</i>	<i>D10A7N</i>		.670
<i>Respect Authority</i>	<i>D10A8N</i>		.573
<i>Pro-Social Conventions</i>	<i>D10A9N</i>		.970
<i>Accepts Responsibility</i>	<i>D10A10N</i>		.544
<i>Belief in Success</i>	<i>D10A11N</i>		.724
<i>Hostile Perception</i>	<i>D11A2N</i>		.781

Table 17.2 Omnibus Measurement Invariance and Structural Tests – Attitude/Behavior

Model	Test of Structure/Invariance	df	CFI	TLI	RMSEA	Δ df	Δ CFI	Δ TLI	Pass?
[90% C.I.]									
F1	MGCFA - Configural Model	68	.981	.975	.064 [.063 - .066]	--	--	--	--
F2	MGCFA - Weak Invariant Model	78	.990	.988	.044 [.043 - .046]	10	+.009	+.013	Yes
F3	MGCFA - Strong Invariant Model	91	.987	.987	.046 [.045 - .047]	13	.003	.001	Yes
F4	Second Order Tau Model	93	.988	.989	.044 [.042 - .045]	2	+.001	+.002	Yes
F5	First Order Factor Item Invariance	101	.973	.976	.063 [.062 - .064]	8	.015	.013	No
F6*	First Factor Partial Item Invariance	100	.984	.986	.048 [.047 - .049]	7	.004	.003	Yes
F7	Final One Group CFA	34	.991	.975	.064 [.063 - .066]	--	--	--	--

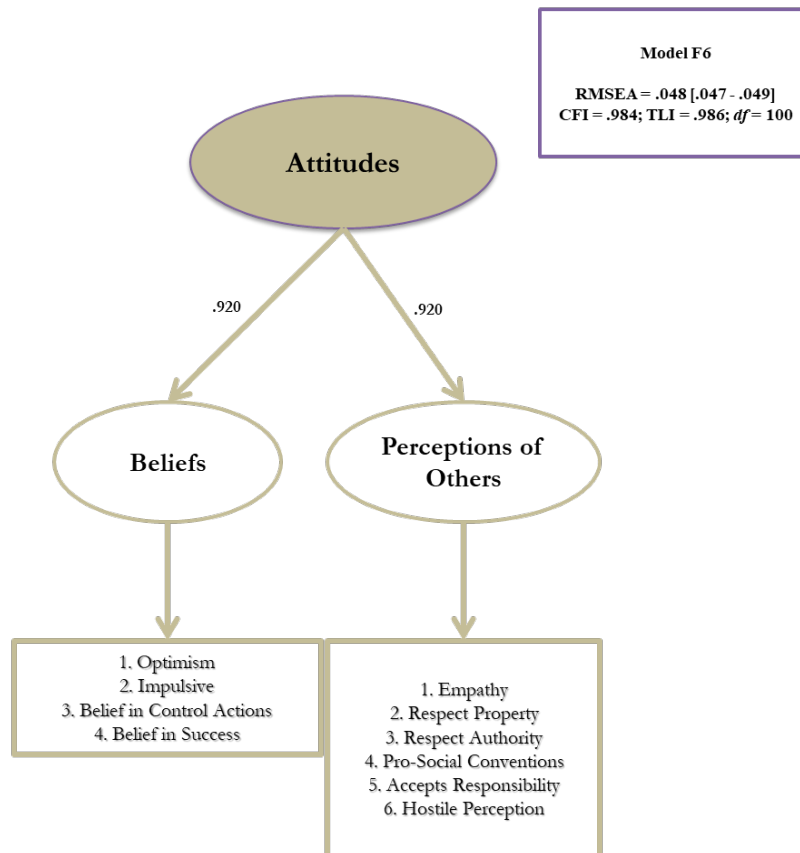
*In Model F6, the constraint of Item D10A9N is turned off.

Table 17.3 Attitude/Behavior (Model F6)

Factor		Item Loading		Item Description	Var
Loading					Name
Male	Female	Male	Female		
		.729	.743	Optimism N	<i>D10A3N</i>
Beliefs	Beliefs	.727	.743	Impulsive; acts before thinking	<i>D10A4N</i>
(.920)	(.920)	.759	.743	Belief in control over antisocial behavior	<i>D10A5N</i>
		.789	.743	Belief in Success	<i>D10A11N</i>
Perceptions	Perceptions	.730	.757	Empathy, remorse, sympathy, or feelings for the victim(s) of criminal behavior:	<i>D10A6N</i>
of Others	of Others	.688	.757	Respect for property of others	<i>D10A7N</i>

(.920)	(.920)	.838	.757	Respect for authority figures	<i>D10A8N</i>
		.738	.757	Attitude toward pro-social rules/conventions in society	<i>D10A9N*</i>
		.811	.757	Accepts responsibility for anti-social behavior	<i>D10A10N</i>
		.496	.508	View of Hostile interpretation of actions and intentions of others in a common nonconfrontational setting	<i>D11A2N</i>

Figure 6. Criminogenic Needs – Attitude



Aggression - Domain 11

The results of the EFA tests suggest a one-factor solution (see Tables 18.0 and 18.1). Following the MGCFA analyses, the *Aggression* scale passed all measurement tests. However, to address a localized ill-fit issue, a correlated residual was added between ‘Belief in Yelling’ and ‘Belief in Fighting’ for all models. The *Aggression* scale is a gender invariant, parallel scale. The visual representation of the final scale is presented in Figure 7, and item descriptions are presented in Table 18.3.

Table 18.0 EFA on Domain 11 - Aggression

Model	<i>df</i>	CFI	TLI	RMSEA [90% C.I.]	<i>SRMR</i>	<i>Eigenvalues</i>
1 Factor	5	.988	.977	.095 [.092 - .098]	.035	3.127
2 Factors	1	.999	.993	.054 [.044 - .059]	.008	.631
3 Factors	N/A	N/A	N/A	N/A	N/A	.556

Table 18.1 EFA on Aggression

Item	Var Name	F1
<i>Frustration Tolerance</i>	<i>D11A1N</i>	.674
<i>Belief in Yelling</i>	<i>D11A3N</i>	.731
<i>Belief in Fighting</i>	<i>D11A4N</i>	.935
<i>Violent Events Reported</i>	<i>D11A5N</i>	.916
<i>Control Aggression</i>	<i>D12A11N</i>	.782

Table 18.2 Omnibus Measurement Invariance and Structural Tests – Aggression

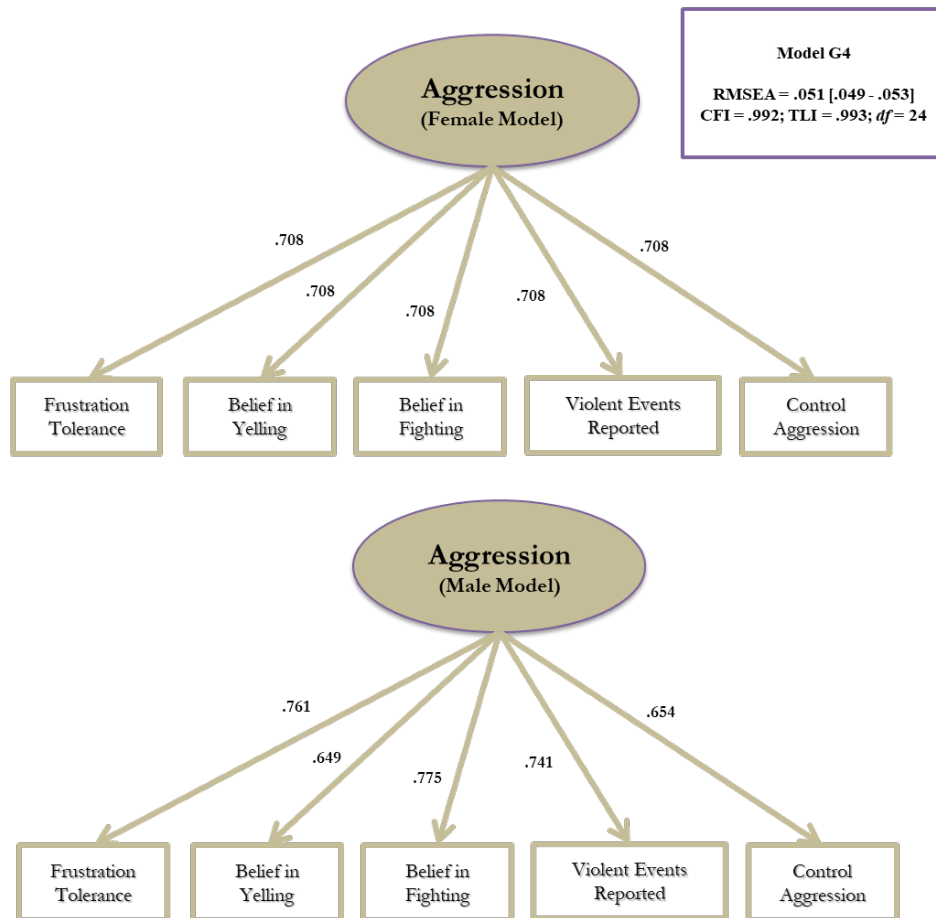
Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
G1*	MGCFA - Configural Model	8	.997	.991	.058 [.054 - .062]	--	--	--	--
G2	MGCFA - Weak Invariant Model	13	.998	.998	.031 [.028 - .034]	5	+.001	+.007	Yes
G3	MGCFA - Strong Invariant Model	20	.995	.995	.044 [.041 - .046]	7	.003	.003	Yes
G4	Item Invariance	24	.992	.993	.051 [.049 - .053]	4	.003	.002	Yes
G5	Final One Group CFA Model	4	.996	.991	.061 [.057 - .064]	--	--	--	--

*Correlated residual is added between D11A3N and D11A4N.

Table 18.3 EFA on Aggression (Model G4)

Item Loading		Item Description	Var
Male	Female		Name
.761	.708	Tolerance for frustration	<i>D11A1N</i>
.649	.708	Belief in yelling and verbal aggression to resolve a disagreement or conflict	<i>D11A3N</i>
.775	.708	Belief in fighting and physical aggression to resolve a disagreement or conflict	<i>D11A4N</i>
.741	.708	Violent Events Reported	<i>D11A5N</i>
.654	.708	Control of Aggression	<i>D12A11N</i>

Figure 7. Criminogenic Needs – Aggression



Skills – Domain 12

As shown in Tables 19.0 and 19.1, a three-factor solution best fit the data. The fit statistics from the MGCFA also align with this finding (see Table 19.2). Together, the results suggest that the *Skill* scale is a second order, gender-invariant and parallel scale. The visual representation of the final scale is presented in Figure 8, and item descriptions are displayed in Table 19.3.

Table 19.0 EFA on Domain 12 - Skills

Model	<i>df</i>	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	35	.987	.983	.081 [.079 - .082]	.121	6.953
2 Factors	26	.993	.987	.069 [.068 - .071]	.065	.648
3 Factors*	18	.998	.996	.039 [.037 - .041]	.012	.567
4-6 Factors	N/A	N/A	N/A	N/A	N/A	.527

*1 Factor solution is not retained due to poor RMSEA value in CFA and, multiple ($n=3$) correlated residuals have to be added in order to address localized ill fit issue.

Table 19.1 EFA on Skills

Item	Var Name	F1	F2	F3
<i>Consequential Thinking</i>	<i>D12A1N</i>	.848		
<i>Goal Setting</i>	<i>D12A2N</i>	.468		
<i>Problem Solving</i>	<i>D12A3N</i>	.870		
<i>Situational Perception</i>	<i>D12A4N</i>	.604	.359	
<i>Dealing with Others</i>	<i>D12A5N</i>	.341	.631	

<i>Difficult Situations</i>	<i>D12A6N</i>	.838	
<i>Dealing with Emotions</i>	<i>D12A7N</i>	.785	
<i>Internal Triggers</i>	<i>D12A8N</i>		.267
<i>External Triggers</i>	<i>D12A9N</i>		1.004
<i>Control Impulses</i>	<i>D12A10N</i>		.688

Table 19.2 Omnibus Measurement Invariance and Structural Tests – Skills

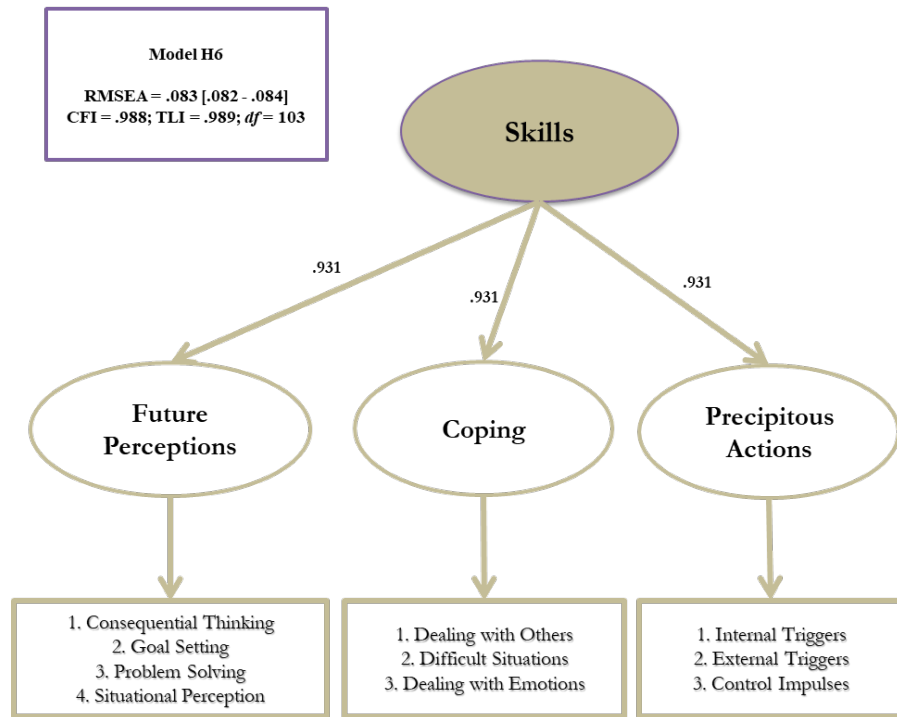
Model	Test of Structure/Invariance	df	CFI	TLI	RMSEA	Δ df	Δ CFI	Δ TLI	Pass?
[90% C.I.]									
H1	MGCFA - Configural Model	64	.992	.988	.088 [.087 - .089]	--	--	--	--
H2	MGCFA - Weak Invariant Model	74	.996	.995	.056 [.054 - .057]	10	+.004	+.007	Yes
H3	MGCFA - Strong Invariant Model	89	.995	.995	.055 [.054 - .056]	15	.001	.000	Yes
H4	Second Order Tau Model	91	.994	.994	.062 [.061 - .063]	2	.001	.001	Yes
H5	First Order Factor Within Factor Item Invariance	98	.987	.988	.088 [.086 - .089]	7	.007	.006	Yes
H6	First order Factor Loading Item Invariance	103	.988	.989	.083 [.082 - .084]	2	+.001	+.001	Yes
H7	Final One Group CFA	34	.990	.986	.094 [.093 - .096]	--	--	--	--

The constraint of Item D10A9N is turned off.

Table 19.3 Skills (Model H6)

Factor Loading		Item Loading		Item Description	Var Name
Male	Female	Male	Female		
<i>Future</i> <i>Perceptions</i> (.931)	<i>Future</i> <i>Perceptions</i> (.931)	.770	.847	Consequential thinking	<i>D12A1N</i>
		.699	.847	Goal setting	<i>D12A2N</i>
		.894	.847	Problem-solving	<i>D12A3N</i>
		.946	.847	Situational perception	<i>D12A4N</i>
<i>Coping</i> (.931)	<i>Coping</i> (.931)	.915	.926	Dealing with others	<i>D12A5N</i>
		.947	.926	Dealing with difficult situations:	<i>D12A6N</i>
		.919	.926	Dealing with feelings/emotions	<i>D12A7N</i>
<i>Precipitous</i>	<i>Precipitous</i>	.923	.859	Monitoring of internal triggers (distorted thoughts) that can lead to trouble	<i>D12A8N</i>
<i>Actions</i>	<i>Actions</i>	.908	.859	Monitoring of external triggers (events or situations) that can lead to trouble:	<i>D12A9N</i>
(.931)	(.931)	.687	.859	Control of impulsive behaviors that get youth into trouble:	<i>D12A10N</i>

Figure 8. Criminogenic Needs – Skills



All individual Scales – One Group CFA

As a result of all individual scales passing group invariance tests, and additional one group CFA was conducted with a combined gender sample. We used the identified scales from the MGCFA tests, and the findings from the one group CFA demonstrate that all of the identified scales functions similarly to the results of the MGCFA analyses. The CFI, TLI and RMSEA statistics are all in the acceptable range, as presented in Table 20.

Table 20 All Domains One Group CFA Final Models

Model	Test of Structure/Invariance	df	CFI	TLI	RMSEA [90% C.I.]
I1	School	31	.995	.992	.072 [.070 - .073]
I2	Association = Use of Time + Employment + Relationships	23	1.000	.999	.039 [.037 - .040]
I3***	Family	101	.935	.923	.079 [.079 - .080]
I4*	Alcohol and Drug	161	.983	.980	.046 [.045 - .046]
I5	Mental Health	5	.998	.995	.042 [.038 - .045]

I6*	Attitude/Behavior	55	.943	.932	.090 [.089 - .092]
I7**	Aggression	4	.996	.991	.061 [.057 - .064]
I8*	Skills	34	.990	.986	.094 [.093 - .096]

*Higher order factor loadings are constrained to be equal to obtain over-identified model

**Correlated residual added between D11A3N and D11A4N

***Family does not contain 'Family Member Problem' because it is historical in nature.

Convergent/Divergent Validity at the Scale Level

Before conducting EFA tests to evaluate the convergent and divergent validity at the scale level, the composite scores for each of the identified scales were computed and used as an indicator in the EFA models. As presented in Table 21.0, a two-factor solution fit the data. Table 21.1 shows that mental health cross-loaded on factor F1 while also loading on factor F2. Given the loading (.676) is stronger than the cross-loading (.317), mental health is retained in factor F2 for further MGCFA analyses. The strong loadings within Factor F2 and face validity of the domains suggest that these four domains might represent an underlying latent factor.

Table 21.0 EFA on All Domains Composite Scores

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	14	.916	.874	.107 [.105 - .109]	.047	3.339
2 Factors	8	.983	.954	.064 [.062 - .067]	.017	1.180
3 Factors	7	.997	.987	.031 [.028 - .034]	.008	.849

Table 21.1 EFA on 2-Factor Solution

<i>Scales</i>	<i>F1</i>	<i>F2</i>
<i>School</i>	.594	
<i>Association</i>	.668	
<i>Family</i>	.449	
<i>Substance Abuse</i>	.474	
<i>Mental Health</i>	.317	.676
<i>Attitude/Behavioral</i>		.677
<i>Aggression</i>		.557
<i>Skills</i>		.452

MGCFA - Mental Health + Attitude/Behavioral + Aggression + Skills

Based on the EFA evidence, Mental Health, Attitude/Behavioral and Aggression were selected for further measurement invariance and higher order modeling tests. As presented in Table 21.2, these four domains passed the second order modeling tests (Model J-3) but did not pass the parallel tests. The final model was retained after releasing the constraint on the mental health factor. The result is a higher order mental health factor with a loading of .345 (see Table 21.3). As this this loading is relative weak compared to the other three loadings (.817), the mental health factor is not retained in the final scale.

Table 21.2 Omnibus Measurement Invariance and Structural Tests – D9 D10 D11 D12
Mental Health + Attitude/Behavioral + Aggression + Skills

Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
J1	MGCFA - Baseline Model	862	.967	.967	.055 [.055 - .056]	--	--	--	--
J2	MGCFA - Second Order Tau Model with All Four Factors	881	.945	.946	.071 [.070 - .071]	19	.022	.021	No
J3*	MGCFA - No Constraint on Mental Health	879	.963	.964	.058 [.058 - .058]	17	.004	.003	Yes

*In Model H3, Model H1 was used for comparison.

Table 21.3 Mental Health + Attitude/Behavioral + Aggression + Skills (Model J3)

Factor Loading		Factor
Male	Female	
.817	.817	Skills
.817	.817	Aggression
.817	.817	Attitude/Behavioral
.354	.345	Mental Health

MGCFA - Attitude/Behavioral + Aggression + Skills = Cognition & Behaviors

Measurement invariance and higher order modeling tests were re-conducted by using only Attitude/Behavioral, Aggression and Skills. As shown in Table 21.4, the model passed an omnibus second order and measurement invariance test (Model K2). Therefore, domains 10, 11 and 12 are measures of a higher order factor, which we call ‘Cognition & Behaviors’. The visual representation of the final scale is presented in Figure 9, and the loadings of the higher order factor are presented in Table 21.5.

Table 21.4 Omnibus Measurement Invariance and Structural Tests –D10 D11 D12
Attitude/Behavioral + Aggression + Skills

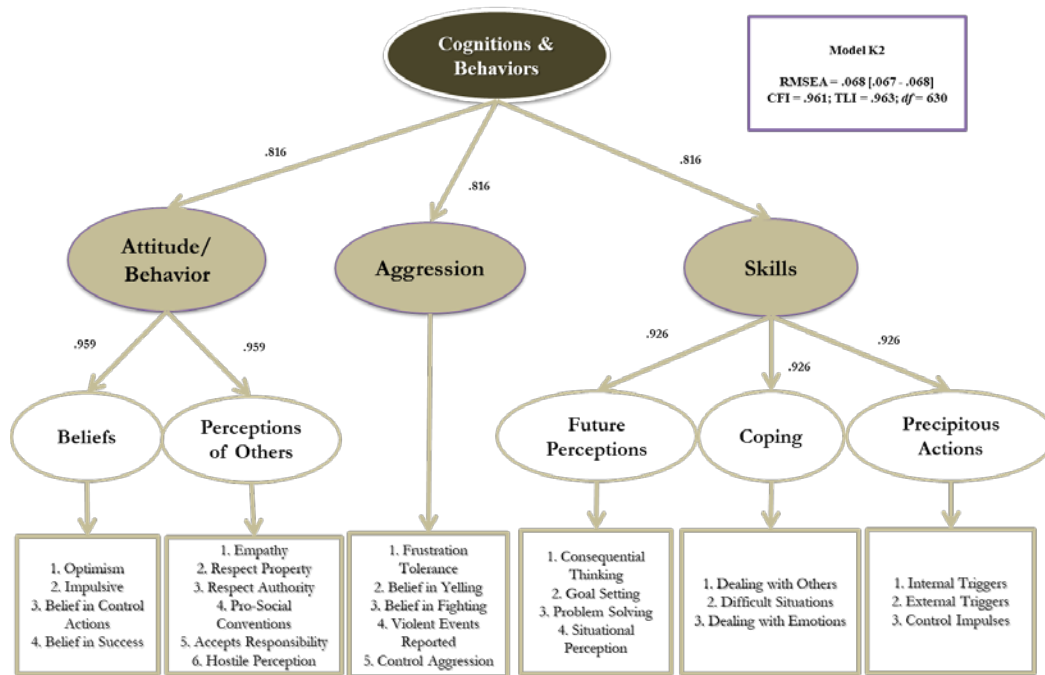
Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]									
K1	MGCFA - Baseline Model	603	.966	.968	.063 [.063 - .064]	--	--	--	--
K2	MGCFA - Second Order Tau Model	630	.961	.963	.068 [.067 - .068]	27	.005	.005	Yes

Table 21.5 Attitude/Behavioral + Aggression + Skills (Model K2)

--

Factor Loading		Factor
Male	Female	
.816	.816	Skills
.816	.816	Aggression
.816	.816	Attitude/Behavioral

Figure 9. Criminogenic Needs – Cognitions & Behaviors



Global Criminogenic Needs Factor Model - EFA with School, Association, Family, Drug, Cognitions & Behaviors and Mental Health

Further EFA analyses were conducted using the School, Association, Family, Drug, and Mental Health scales, as well as the established higher order scale of Cognitions & Behaviors. As demonstrated in Table 22, a two-factor solution is obtained. However, after examining factorial pattern displayed in Table 22.1, the two-factor solution is not retained because the loadings of the Mental Health scale are weak (.238). Accordingly, we selected the one-factor solution. As displayed in Table 22.2, the factorial pattern of the one-factor solution also suggests that Mental Health is not a measure of the underlying G-factor.

Table 22.0 EFA on School, Association, Family, Drug, Cognitions & Behaviors and Mental Health

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	9	.918	.864	.099 [.097 - .102]	.039	2.566
2 Factors	8	.983	.954	.064 [.062 - .067]	.017	1.060
3 Factors	--	--	--	--	--	--

Table 22.1 EFA on 2-Factor Solution – Not Retained

Scales	F1	F2
<i>School</i>	.631	--
<i>Association</i>	.673	--
<i>Family</i>	.551	--
<i>Substance Abuse</i>	.497	--
<i>Cognitions & Behaviors</i>	.001	1.205
<i>Mental Health</i>	-.096	.238

Table 22.2 EFA on 1-Factor Solution - Retained

Scales	F1
<i>School</i>	.553
<i>Association</i>	.774
<i>Family</i>	.621
<i>Substance Abuse</i>	.414
<i>Cognitions & Behaviors</i>	.728
<i>Mental Health</i>	.122

EFA with School, Association, Family, Drug, and Cognitions & Behaviors

The EFA was re-run with the School, Association, Family, Drug, Cognitions & Behaviors scales. The results indicated a one-factor solution (see Table 22.3). Loadings from the EFA are displayed in the Table 22.4, and they demonstrate that the one-factor solution is an acceptable EFA model. In short, the loadings of the indicators/scales form an underlying factor, and a one-factor solution is retained.

Table 22.3 EFA on Domains Scores (No Mental Health)

Model	df	CFI	TLI	RMSEA [90% C.I.]	SRMR	Eigenvalues
1 Factor	5	.971	.943	.075 [.071 - .078]	.024	2.550
2 Factors	1	.997	.972	.052 [.045 - .060]	.008	.819
3 Factors	--	--	--	--	--	--

Table 22.4 EFA on 1-Factor Solution (No Mental Health)

Scales	F1
<i>School</i>	.556
<i>Association</i>	.783
<i>Family</i>	.618
<i>Substance Abuse</i>	.417
<i>Attitude/Behavioral+ Aggression+ Skills</i>	.718

Global Criminogenic Needs Factor Model – True Score Variance Model

The School, Association, Family, Drug, and Cognitions & Behaviors scales have been identified as group invariant, parallel, higher order factor scales. To estimate the true relationships among these scales, we used their true score variances, extracted based on *wh* coefficients, as indicators in the final G-Factor Model.

Construct Reliability

Construct reliability was estimated for all of the identified, independent higher order scales, including School, Association, Family, Drug, and Cognitions & Behaviors. Table 23.0 presents the construct reliability by using two different estimators, *wh* and Cronbach's Alpha. The construct reliability for all the scales,

according to the *wh* coefficients, are .860 (School), .599 (Association), .558 (Family), (.709) Substance Abuse, and .788 (Cognitions & Behaviors). Cronbach's Alpha coefficients are reported for comparison and reference.

Table 23.0 Construct Reliability

Scales	<i>wh</i>	<i>Cronbach Alpha</i>
<i>School</i>	.860	.899
<i>Association</i>	.599	.541
<i>Family</i>	.558	.404
<i>Substance Abuse</i>	.709	.372
<i>Cognitions & Behaviors</i>	.788	.750

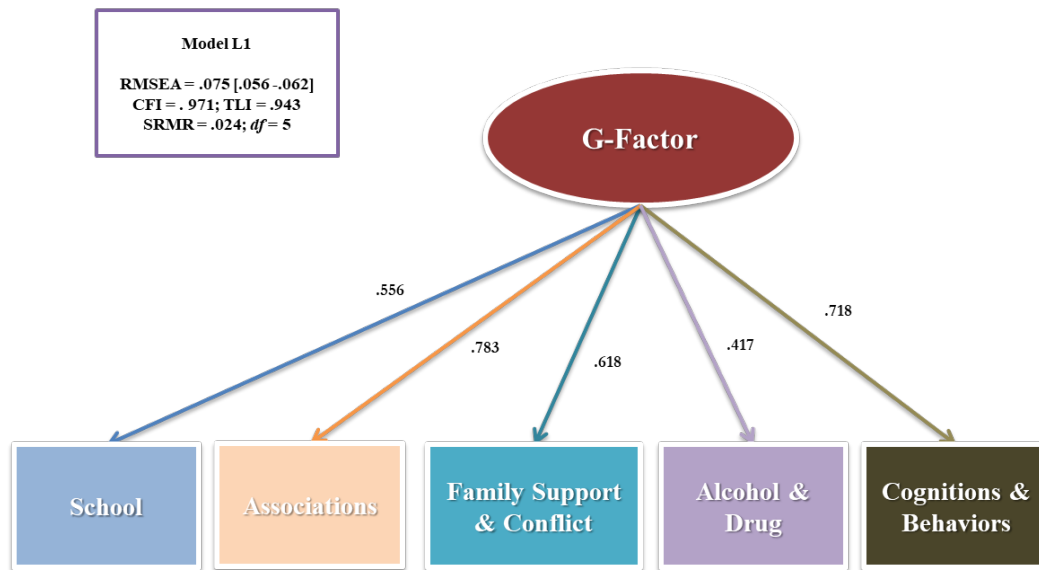
Final Model and Measurement Invariance Test

To confirm the G-Factor model, both the composite scores variance and true score variance indicators were used. These indicators were tested in independent models. As displayed Model 1 in Table 24.0 and Figure 10, the composite score (unweighted) indicator model results in a CFI of .971, TLI of .943, and RMSEA of .075. The loadings for School (.556), Association (.783), Family Support & Conflict (.618), Substance Abuse (.417), and Cognitions & Behaviors (.718) are relatively weak, as the indicators contain true score variance and factor disturbances (Mei, 2018). The visual representation of the G-Factor Composite Score Model is presented in Figure 10.

Table 24.0 One Group - Final Global-Risk-Needs CFA Model

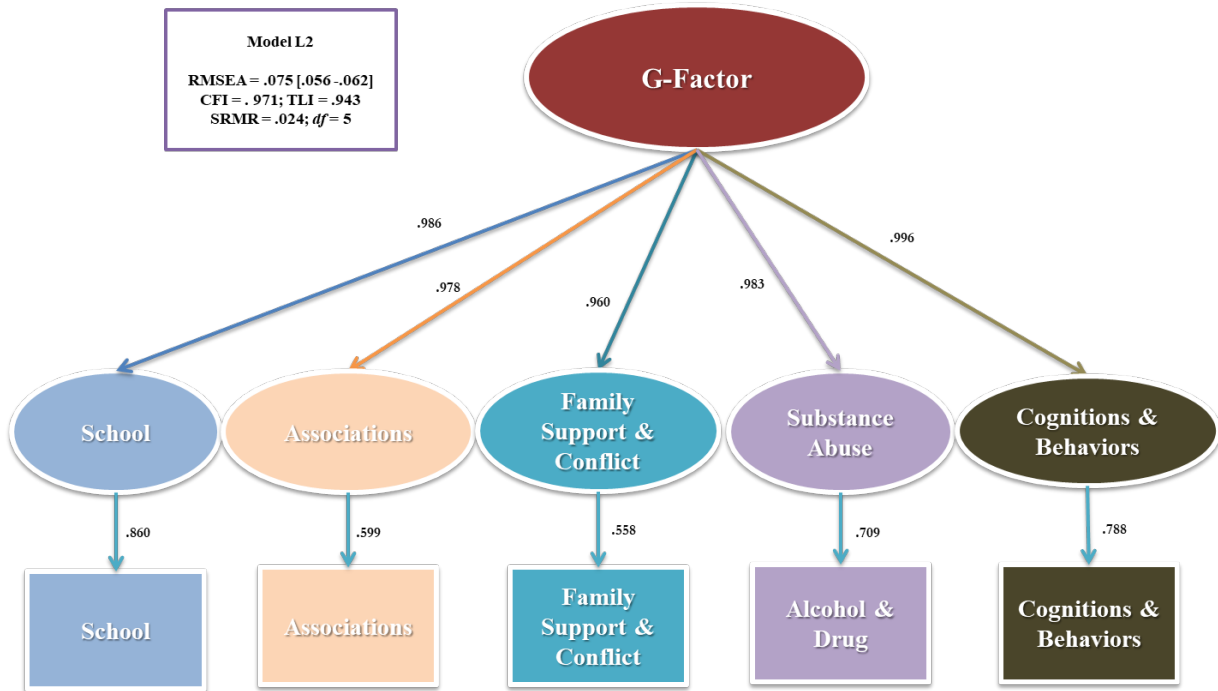
Model	Test of Structure/Invariance	<i>df</i>	CFI	TLI	RMSEA	SRMR	Δdf	ΔCFI	ΔTLI	Pass?
[90% C.I.]										
L1	Composite Score Model	5	.971	.943	.075 [.071 - .078]	.024	--	--	--	--
L2	True Score Variance Model – Baseline Model	5	.971	.943	.075 [.071 - .078]	.024	--	--	--	Final Model
L3	True Score Variance Tau Model	9	.784	.760	.153 [.150 - .155]	.146	9	.187	.183	No

Figure 10. Global Criminogenic Needs Factor – Composite Score Model



In Model L2, the scales' true score variances were used as indicators in the final one group, one-factor CFA model. With a CFI of .971, TLI of .943, RMSEA of .075, as well as strong loadings for School (.986), Association (.978), Family Support & Conflict (.960), Substance Abuse (.983) and Cognitions & Behaviors (.996), this model (L2) is retained as the final G-factor model.

Figure 11. Global Criminogenic Needs Factor – True Score Variance Model



Appendix VI – Criminogenic Needs Models

School Needs Model												
			Male					Female				
			Any	Felony	Violent	Property	Drug	Any	Felony	Violent	Property	Drug
	Min	Max										
SCHOOL INVOLVEMENT												
Current enrollment status, regardless of attendance												
Graduated, GED or full-time												
Part-time												
Suspended, dropped out or expelled												
Involvement in school activities												
Two or more												
One												
Not involved but interested												
Not interested												
Attendance												
Good, few excused absences												
No unexcused absences												
Some partial-day unexcused absences												
Some full-day unexcused absences												
Truant or withdrawn												
BELIEVE ENCOURAGE & STAFF SCALE												
Believes there is value in getting an education												
Yes												
Somewhat												
No												
Believes school provides an encouraging environment												
Yes												
Somewhat												
No												
Teachers, staff, or coaches the youth likes or feels comfortable talking to												
None												
One												
Two or more												
EXPULSIONS & CONDUCT SCALE												
History of expulsions & suspensions since the first grade												
None												
One												
Two or more												
Number of expulsions & suspensions in the most recent term												
None												
One												
Two or three												
Over three												
Conduct in the most recent term												
Recognition for good school behavior												
No problems												

RELATIONSHIPS & UNDERSTANDING SCALE										
History of positive personal relationship(s) with past employer(s) or adult coworker(s)										
None									0	0
One									-1	-1
Two or more									-2	-2
Current positive personal relationship(s) with employer(s) or adult coworker(s)										
Not currently employed or currently employed but no positive relationships	0	0	0	0	0	0	0	0	0	0
One or more	-2	-2	-2	-1	-2	-1	-3			-1
Understanding of what is required to maintain a job										
Lacks knowledge to maintain Job	0	0	0	0	0	0		0		0
Has knowledge to maintain Job	-1	-3	-3	-1	-3	-2		-3		-1
Has demonstrated maintaining job	-2	-6	-6	-2	-6	-4		-6		-2
PRO-SOCIAL ASSOCIATES	-5	0								
Current positive adult non-family relationships not connected to school or employment										
None									0	0
One									-1	-1
Two									-2	-2
Three or more									-3	-3
Current pro-social community ties										
None	0	0	0	0	0	0		0		0
Some	-1	-1	-1	-1	-1	-1		-1		-1
Strong	-2	-2	-2	-2	-2	-2		-2		-2
ANTI-SOCIAL ASSOCIATES	-4	6								
Current friends/companions youth spends time with										
Only pro-social friends	-4	-3	-2	-3	-1	-2	-1	-1	-2	-1
No consistent friends or companions/mix of pro-social and anti-social friends	0	0	0	0	0	0	0	0	0	0
Only anti-social friends	4	3	2	3	1	2	1	1	2	1
Gang member/associate	8	6	4	6	2	4	2	2	4	2
Currently admires/ emulates anti-social peers										
Does not admire	-4	-3	-2	-3	-1	-2	-1	-1	-2	-1
Somewhat admires	4	3	2	3	1	2	1	1	2	1
Admires, emulates	8	6	4	6	2	4	2	2	4	2
Current resistance to anti-social peer influence										
Does not associate with anti-social peers	-8	-6	-4	-6	-2	-4	-2	-2	-4	-2
Usually resists	-4	-3	-2	-3	-1	-2	-1	-1	-2	-1
Rarely resists	4	3	2	3	1	2	1	1	2	1
Leads anti-social peers	8	6	4	6	2	4	2	2	4	2
SINGLE ITEMS										
Current employment status										
Not currently employed					0		0	0	0	0
Employment going well					-1		-1	-2	-3	-1
Problems with employment					1		1	2	3	1
Currently in a "romantic," intimate, or sexual relationship										
Not romantically involved	0	0	0		0					

Transient	1	1	1	1	1	1	1	1	1
Foster/Group Home	1	1	1	1	1	1	1	1	1
FAMILY SUPPORT	-4	5							
Support network for family									
None				0	0				0
Some				-1	-1				-1
Strong				-2	-2				-2
Family willingness to help support of youth									
Willing to support					-1				-1
Inconsistently supports					1				1
Not willing to support					2				2
Hostile, berating, belittling					3				3
Family provides opportunities for youth to participate in family activities and decisions									
None		2			2				2
Some		1			1				1
Opportunities		-1			-1				-1
FAMILY PARENTING SKILLS	-5	8							
Parental supervision									
Consistent, good		-2	-1	-1	-1	-1	-1	-1	-1
Sporadic		2	1	1	1	1	1	1	1
Inadequate		4	2	2	2	2	2	2	2
Parental authority and control									
Usually follows family rules		-2	-1	-1	-1	-1	-1	-1	-1
Sometimes follows family Rules		2	1	1	1	1	1	2	1
Consistently disobeys Family		4	2	2	2	2	2	4	2
Hostile toward family		4	2	2	2	2	2	4	2
Consistent appropriate punishment for bad behavior									
Consistently appropriate		-2	-1	-1	-1	-1	-1	-1	-1
Consistently overly severe		2	1	1	1	1	1	1	1
Consistently insufficient		2	1	1	1	1	1	1	1
Inconsistent or erratic		4	2	2	2	2	2	2	2
Consistent appropriate rewards for good behavior									
Consistently appropriate		-2	-1	-1	-1	-1	-1	-1	-1
Consistently overly indulgent/overly protective		2	1	1	1	1	1	1	1
Consistently insufficient		2	1	1	1	1	1	1	1
Inconsistent or erratic		4	2	2	2	2	2	2	2
Parental characterization of youth's anti-social behavior									
Parents disapprove		-2	-1	-1	-1	-1	-1	-1	-1
Parents minimize/excuse		2	1	1	1	1	1	1	1
Parents okay with		2	1	1	1	1	1	1	1
Parents proud		4	-2	-2	-2	-2	-2	-2	-2
FAMILY CONFLICT	-7	6							
Youth has run away or been kicked out of home:									
No run away/kicked out		-1	-1	-2	-1	-1	-1	-1	-1
Runaway/kicked out		1	1	2	1	1	1	1	1
Currently a runaway/kicked Out		2	2	4	2	2	2	2	2
Family member(s) youth feels close to or has good relationship with									
None		1	1	2	1	1	1	1	
Mother/female caretaker		-1	-1	-2	-1	-1	-1	-1	
Father/male caretaker		-1	-1	-2	-1	-1	-1	-1	
Male sibling		-1	-1	-2	-1	-1	-1	-1	
Female sibling		-1	-1	-2	-1	-1	-1	-1	
Extended family		-1	-1	-2	-1	-1	-1	-1	

Current Alcohol use: Alcohol interferes with pro-social friendships										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Alcohol use: Alcohol causes health problems										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Alcohol use: Alcohol contributes criminal behavior										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Drug use: Drug disrupts education										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Drug use: Drug causes family conflict										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Drug use: Drug interferes with pro-social friendships										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Drug use: Drug causes health problems										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
Current Drug use: Drug contributes criminal behavior										
No	0	0	0	0	0	0	0	0	0	0
Yes	1	1	1	1	1	1	1	1	1	1
HEALTH PROBLEM										
	0	6								
Type of (hard) drugs currently used										
Amphetamines		1	1	1	1	1	1		1	1
Cocaine (coke)/Cocaine (crack/rock)		1	1	1	1	1	1		1	1
Heroin		1	1	1	1	1	1		1	1
Other (not including marijuana or alcohol)		1	1	1	1	1	1		1	1
Current Alcohol use: Alcohol causes health problems										
No		0	0	0	0	0	0		0	0
Yes		1	1	1	1	1	1		1	1
Current Drug use: Drug use causes health problems last										
No		0	0	0	0	0	0		0	0
Yes		1	1	1	1	1	1		1	1
SINGLE ITEMS										
Type of (hard) drugs currently used										
Amphetamines		2							1	
Cocaine (coke)/Cocaine (crack/rock)		2							1	
Heroin		2							1	
Other (not including marijuana or alcohol)		2							1	
RESULTS										
AUC	0.57	0.56	0.52	0.55	0.6	0.56	0.57	0.52	0.53	0.65
Cut point										
Low-Moderate	-1	-1	-1	-1	-1	-1	0	4	4	4
Moderate-High	10	7	8	6	5	8	10	12	10	8
Population %										
Low	29	36	36	36	36	35	42	65	64	64
Moderate	51	52	56	47	42	54	52	34	30	24
High	20	11	8	16	22	10	6	1	6	12

[illegible]

Cannot analyze the situation for use of a prosocial skill	1	1	1	1	1	1	1	1	1	1
Does not choose the best pro-social skill	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Chooses best skill but not best time and place	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Selects the best time and place for best skill	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
COPING										
Dealing with others										
Lacks basic social skills in dealing with others	1	1	1	1	1	1	1	1	1	1
Lacks advanced skills in dealing with others	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Sometimes uses advanced social skills in dealing with others	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Often uses advanced social skills in dealing with others	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Dealing with difficult situations										
Lacks skills in dealing with difficult situations	2	2	2	2	2	2	2	2	2	2
Rarely uses skills in dealing with difficult situations	1	1	1	1	1	1	1	1	1	1
Sometimes uses skills in dealing with difficult situations	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Often uses skills in dealing with difficult situations	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Dealing with feelings/emotions										
Lacks skills in dealing with difficult situations	2	2	2	2	2	2	2	2	2	2
Rarely uses skills in dealing with difficult situations	1	1	1	1	1	1	1	1	1	1
Sometimes uses skills in dealing with difficult situations	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Often uses skills in dealing with difficult situations	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
PRECIPITOUS ACTIONS										
Monitoring of internal triggers										
Cannot identify internal triggers	1	1		1	1	1	1		1	1
Identifies internal triggers	-1	-1		-1	-1	-1	-1		-1	-1
Actively monitors/controls internal triggers	-2	-2		-2	-2	-2	-2		-2	-2
Monitoring of external triggers										
Cannot identify external Triggers	1	1		1	1	1	1		1	1
Identifies external triggers	-1	-1		-1	-1	-1	-1		-1	-1
Actively monitors/controls external triggers	-2	-2		-2	-2	-2	-2		-2	-2
Control of impulsive behaviors that get youth into trouble										
Never a problem with impulsive behavior	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Lacks techniques to control impulsive behavior	1	1	1	1	1	1	1	1	1	1
Knows techniques to control impulsive behavior	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Uses techniques to control impulsive behavior	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
RESULTS										
AUC	0.55	0.55	0.57	0.57	0.53	0.56	0.57	0.6	0.57	0.52
Cut point										
Low-Moderate	-11	-5	-7	-7	-7	-5	-4	-4	-4	-4
Moderate-High	9	10	8	7	6	8	8	8	7	6
Population %										
Low	14	34	23	23	23	32	35	35	35	35

Moderate	73	56	66	63	59	58	90	55	52	48
High	13	10	11	14	18	10	5	9	12	16
Recidivism %										
Low	46	19	17	22	8	36	8	10	17	3
Moderate	55	26	23	31	9	45	13	16	23	4
High	59	27	27	35	10	51	15	24	27	5
Gender-neutral base rate	34	16	14	19	5	34	16	14	19	5