Valparaiso University
ValpoScholar

Symposium on Undergraduate Research and Creative Expression (SOURCE)

Office of Sponsored and Undergraduate Research

4-20-2011

Predicting Violent Crime

Janelle Ramsel

Ashley Varner

Crystal Sandoval

Follow this and additional works at: https://scholar.valpo.edu/cus

Part of the Psychology Commons

Predicting Violent Crime Manual

Table of Contents

Introduction

The nature of the scale includes a total of 33 different subscales that predict violent behavior. These subscales were as followed: family relationships, narcissistic, entitlement, antisocial intent, associates, education, family violence, father's lack of vocational training, mother's alcohol abuse, unemployment, societal influences, resource availability, psychiatrically hospitalized mothers, suicidal tendencies, mother's cigarette/alcohol use during pregnancy, onset of delinquency prior to 10 years, physical aggression, cruelty, low expectations of being caught, poor/unstable child-rearing factors, delinquent peer behavior, poor school performance and truancy, demographic factors indicative of family disadvantage, weapon carrying, weapon use, gang membership, drug selling, callousness, impulsivity, high distress/high levels of anxiety, lack of empathy and guilt, concentration problems, aggressiveness, prior incarcerations, self-depreciation, low self-esteem, health concerns, drug use, Anti-social personality disorder diagnosis and gender.

These subscales helped to develop and organization the test to predict the likelihood of an individual to commit a violent crime. One or two questions were provided from each subscale so that all subscales were included in the test to give us the best change to predict violent behavior. Scoring for each question varied because of the different levels of importance of each predictor. The predictors that have a greater indicator of violent behavior have more points and subscales that are at a less degree of violent behavior have fewer points. The importance of each predictor was determined from previous research obtained.

Past Research

There has been past research to determine what predicts violent behaviors. There are many risk factors of violent behavior found in past studies. Loeber et al. (2005) identified four main factors: violent fathers, the offenders' seizures, psychiatrically hospitalized mothers, and suicidal tendencies. We decided to use some of these factors in our test because they were so affective in this study. Other predictors included factors of earlier experiences in life. For example mother's complications during pregnancy such as alcohol or drug use, onset of delinquency prior to 10 years of age, physical aggression, cruelty, and callous/unemotional behavior. Also there are some cognitive behaviors that serve as factors of predicting violent behavior such as having low expectations of being caught. School performance and truancy were among these factors as well as weapon carrying, weapon use, gang membership, drug selling, and persistent drug use (Loeber et al. 2005).

There has been research developing around the topics of crime and drug abuse and how these two topics seem to go together. "Miller and colleagues estimated that 5.4 million violent crimes and 8 million property crimes involved alcohol and other drugs use in the USA in 1999" (Fridell et al. 2008). We expect that over time these numbers might have increased in the USA. Gender played a factor in our scoring because men are said to be more likely to commit a violent crime than women. Fridell et al. explains, "As expected, men were more criminally active than women, and younger subjects were more criminally active than older subjects" (Fridell et al. 2008). Interesting explanations in this study suggest that drug users may be involved in crime to obtain money for drugs; drug users may also commit crime under the influence of drugs; and drug users, or a subset of drug users, may share characteristics that predispose them to criminal behaviour, such as antisocial personality disorder (ASPD). In this study they found that subjects with a diagnosis of ASPD, based on clinical observation, were substantially more criminally active than substance abusers without such as diagnosis (Fridell et al. 2008).

Callousness and impulsivity seemed to be the two most important predictors of future criminal behavior. A number of studies have demonstrated that adolescents who manifest clinically significant callous and impulsive personality traits tend to show greater criminal behavior compared to individuals low on these traits (Victacco et al. 2002). This helped us determine which predictors where more important and should be scored higher than all the other predictors. Since callousness and impulsivity seemed to be very important in predicting criminal behavior we scored questions regarding these subscales higher than other subscales. Results from this study have shown that the callous and impulsivity traits were important determinants of delinquent acts, symptoms of psychopathology, family/social problems, and prosocial behavior over an 18-month period. However, race was not used as a subscale while developing the test because from this study results shown that race does not affect juvenile justice decision making.

Viewing other tests also helped in determining what predictors to use in our test while predicting criminal behavior. The MMPI-A was used for its scales; hysteria, anxiety, anger, low self-esteem, brooding, persecutory ideas and deficient inhibition predicted future violent offenses. Many of these scales were used in the test because they are important factors that are needed to predict violence. Parker explain the results of this study indicate, "that personality characteristics are strong predictors of violent juvenile offending while past criminal behavior is a better predictor of non-violent juvenile offenses" (Parker et al. 2005). The Weinberger Adjustment inventory researched and used to measure personality traits of distress such as anxiety, depression, low sense of well-being, and low self-esteem and restraint such as impulse control, suppression of aggression, responsibility, and consideration. With all these different predictors, accurate test was produced to predict criminality.

Testing population

The testing population used involved college educated students. This population is typically considered a non-violent group. The population was around 60 participants. This is not as large of a population as one would have liked. These participants were found in two different college courses at Valparaiso University. One class received extra credit for participating and the other class received no compensation for participating in this test.

User Qualifications

The user qualifications for this test were a minimum of eighth-grade reading level and a maximum of college education and above.

General Testing Considerations

Directions were given to each class regarding the test. Directions were as followed: Please check all of the boxes that apply to you and return test to the front when completed. Do not put you name on the test to ensure confidentiality.

Time to complete the test was typically around 7 to 10 minutes. However, there was no time limit so the sample could have taken as long as they like to complete the test if necessary.

Locations of the tests that were given were quiet, adequately lit locations so the sample could concentrate on the test and not have any distractions that might affect their answers.

Debriefing followed once everyone completed the entire test. Debriefing was as followed: Thank you for taking the time to take our test. A test was built to predict the likelihood of an individual

committing a violent crime by using different subscales. The total amount of points males can receive are 220 points. Females can receive 215 points. Males can receive more points than females because from our research males are more likely to commit violent crimes than females.

Scoring responses

The scoring responses ranged from 0 to 76 points which shows that a population of low criminality was tested.

Directions for Administration

Materials

The Materials necessary for this activity are the written survey and a writing utensil.

Description

The test-taker should be instructed to check all items that are true for them. They are allowed to ask for clarification of any terms that may be of a vocabulary that is beyond their understanding. The experimenter will refrain from giving any examples of behavior that might adhere to that model in order to refrain from influencing the test-taker's responses.

Sample Test

Self-Identifiers

Gender: __ Male __ Female

Highest level of Education Completed: __ Middle School __ Some High __ High School
                                                                            or below   School   or above
Employment:
__ I am currently or have been previously regularly employed.
__ I have had irregular employment.
__ I have never been employed.

Family History
Parent's vocational training: Father __ Has training   ___ Has no training __ I don't know
                                                  Mother __ Has training   ___ Has no training __ I don't know

Immediate Family Alcohol Abuse: __ Father   ___ Mother ___ Neither ___ I don't know

Immediate Family Psychiatric health:
__ Mother has been institutionalized. __ Father has been institutionalized.
__ Neither   __ I don't know

Pre-natal health: Check all that apply
__ Mother was known to have smoked cigarettes while pregnant with me.
__ Mother had complications while pregnant with me.
__ Neither

___ I don't know

Check All That Are True

☐ I have a quick temper.

☐ I am able to do things as well as most other people.

☐ I have difficulty knowing who to trust and when to trust.

☐ I am unfairly underprivileged compared to my peers.

☐ People wish the best for me.

☐ I can tell when my actions have gone too far.

☐ I feel in control of my emotions.

☐ I would describe myself as a low-stress person.

☐ I am unable to appropriately display my emotions.

☐ I carry a weapon.

☐ I felt my parents were responsive to my needs as a child.

☐ I make valuable contributions.

☐ I am resistant to changing my current attitudes.

☐ I often don't go to school.

☐ I behave appropriately in whatever situation I am in.

☐ I was placed in more than 2 daycare centers before age 10.

☐ I have problems concentrating.

☐ Most people like me.

☐ I like to be included.

☐ I am a member of a gang.

☐ I have been known to get angry about how I am treated.

☐ I value others' input.

☐ I am a high-spirited and cheerful person.

☐ I have spent a significant amount of time with someone who has committed a crime.

☐ I have been arrested.

☐ I wish I could have more respect for myself.

☐ I don't usually know when to stop a behavior.

☐ I have periods in which I feel devastated and/or depressed.

☐ I am anxious and fearful much of the time.

☐ I am not usually described as having a warm personality.

☐ I understand my actions will have consequences.

☐ I am always on guard to defend myself.

☐ I feel that I have a number of good qualities.

☐ I tend to regret some of my decisions.

☐ I have a lot of close friends.

☐ I often feel lonely.

☐ I sometimes continue a behavior even after being told to stop.

☐ I am able to empathize with others' feelings.

☐ I have been diagnosed with ADHD.

☐ I frequently have major health problems.

☐ I have been in legal trouble.

☐ I am a recreational user of stimulant drugs.

☐ I have a positive relationship with my family.

☐ My feelings are more important that others' feelings.

☐ I deserve everything that is given to me, regardless of whether I have to work for it.

☐ I have the resources to meet my needs.

☐ I had a criminal record before age 10.

☐ When I do something bad, I don't always have consequences.

☐ My parents practiced physical punishment.

☐ Overall, I feel that I am a failure.

☐ Growing up, I knew what my parents expected of me.

☐ I do well in school.

☐ I use a weapon to defend myself.

☐ I feel useless at times.

☐ I let people know when I don't like them.

☐ I have sold drugs.

☐ I have been suspended from school.

Directions for Scoring

Scoring

There are two scoring sheets available to assist in the grading of the surveys. One sheet, the Quick Grading Guide, is a visual tool to help the examiner in awarding points to the various questions. It

indicates all answers that should receive points if selected on the survey. All unselected items receive no points. The Quick Guide is able to shorten grading time, but is not able to assist the examiner in explaining the subscale's item breakdown.

The second grading sheet available, the Complete Grading Guide, can be used to determine what points correspond with which subscales. It provides a complete written guide to the survey in language of true versus false, as well as including the points awarded for each answer. See Appendix C and D for complete scoring guides.

Maximum and minimum points

The maximum amount of points any person may receive is 220 for males and 215 for females. This 5-point difference represents the 5 points that an individual will receive for being male within the survey. Consequently, the lowest possible score for women is 0 and is 5 for men. A higher score indicates the individual's greater likelihood of committing a violent crime in the future than a lower score.

Some items on our scales are stronger predictors for the potential of violent crime. These items are determined by past research and the strength of the correlations found therein. Once these items have been identified, they are weighted on a ten-point scale according to the strength of their prediction power. The most strongly correlated items receive 10 points. The next highest predictors receive 7 points, the average received 5, low averaged receive 3, and the least strong predictors receive 1 point. If there are several questions in a subscale working to measure the same predictor, the total points available for that particular subscale will be divided between all the questions that measure the same criteria.

Scores

The Violent Crime Prediction Test's points are compared to a normal bell curve of their distribution. The average score is 32.2 with a range of 76, a max of 76 and a min of 0. The treatment of what is normal is based on this curve. Scores that fall below and around average are considered to be normal. Scores that are one standard deviation from the mean or below are considered to be of a normal population (a score of 50 or below). A score above 50 to 68.8 is considered to be of concern and a score two standard deviations from the norm (a score of 68.8 or above) is considered to be significantly above the average and represents an individual who is likely to perform a violent crime.

Summary table of scores

Points	Interpretation of Score
0 – 50	Normal
51 – 69	Score may be of concern. Monitor behavior.

70 – 220	Score indicates the individual is likely to engage in a violent behavior.

Statistical Description

The statistical information obtained for this test resides heavily on validity and reliability. However, one of the key difficulties in building the test was that the direct question, "Will you committee a violent criminal act in the future," in measuring violent behavior was left off because the test, along with the total of subscales is meant to predict violent. If the direct question was asked, there would be no need for some of the questions or subscales. The dilemma presented was somewhat relieved due to past research in dealing with face validity. Face validity is an assortment of data from a test intended to measure something. In other words, a test can be said to have face validity if it "looks like" it is going to measure what it is supposed to measure as opposed to "has it been proven to work". However, it is not a perfect measurement, as assessments of face validity are very much based on personal experience; what seems valid and reasonable to one person may seem weak to another.

The statistical representation was computed by comparing the items in the subscales to each other to see how well each question predicted that the next question would be answered in a similar manner. For example, self-esteem was examined, which entailed questions 2, 12, 18, 26, 33, 50, and 54. By doing the reliability testing among all these factors, it would most likely occur that if an individual answered one of the questions for the self-esteem subscale, than that same individual would give the same answer to another question within the same subscale and receive the same amount of points.

With regard to predicting behavior, violence has been able to be predictive by making reliable and moderately valid judgments. The prediction for this test was determined by the subscales that were reliable for items that had more than two questions. Some subscales were positively correlated with one another while others were negatively correlated. Each subscale relates to total reliability. Therefore, anger, self-esteem, callousness, anxiety, child rearing, antisocial, depression, and the impulsivity subscales were tested to predict a future act of violence.

The subscale anger had a chronbach alpha of .550, anxiety had an alpha of .297, anti-social had .418 and impulsivity consisted of -.024. However, there was no question that could be eliminated for either scale in order to increase the alpha to the ideal value. Self-esteem fell at .497, and removing questions 2 and 26 would have marginally increased the alpha but not drastically. Callousness had a chronbach alpha of .325 and by removing question 13 it would have increased slightly. Child-rearing also signified a low reliability (.285) and in order to increase the value, question 49 would have to be removed. Depression had a value of .529 and question 28 needed to be removed to increase the alpha. However, once again by taking away specific questions for particular subscales, the chronbach's alphas would still not be any were near the value needed. Unfortunately, the overall test failed to prove any type of reliability because all of the items in our subscales fell below .8 in the chronbach alpha. See appendix page___ to view all of the subscale's chronbach's alpha level.

The chronbach alpha numbers represented a poor reliability, especially for impulsivity, which suggests zero correlation. In regards to the overall test, all of the items for the subscales were kept. Although the subscales do not predict the extent to which a similar response is indicated for another

item within the same score, the different questions work together to predict the severity of a particular condition.

References

Christian, R.E., Frick, P.J., Hill, N.L., Tyler, L., & Frazer, D.R. (1997). Psychopathy and Conduct Problems in

Children: II. Implications for Subtyping Children with Conduct Problems. American Academy of

Child and Adolescent Psychiarty, 36(2), 233-241. Retrieved on October 1, 2010.

Christoffersen, M.N., Francis B. & Soothill, K. (2003). An upbringing to violence? Identifying the

likelihood of violent crime among the 1966 birth cohort in Denmark. *The Journal of*

Forensic Psychiatry & Psychology, 14(2), 367-381. Retrieved on October 1, 2010.

Fridell, M., Hesse, M., Jaeger, M.M. & Kuhlhorn, E. (2008). Antisocial personality disorders as a

predictor of criminal behaviour in a longitudinal study of a cohort of abusers of several classes of

drugs: Relation to type of substance and type of crime. *Addictive Behaviors*, 33, 799-811.

Retrieved on October 1, 2010.

Gretton, H.M., Catchpole, R. & Hare, R.D. (2004). Psychopathy and Offending from Adolescence to

Adulthood: A 10-Year Follow-Up. *Journal of Consulting and Clinical Psychology,* 72(4), 636-645.

Retrieved on October 1, 2010.

Loeber, R., Pardini, D., Homish, D.L., Wei, E.H., Farrington, D.P., Creemers, J., Crawford, A.M.,

Stouthamer-Loeber, M., Koehler, S.A. & Rosenfeld, R. (2005). The Prediction of Violence and

Homicide in Young Men. *Journal of Consulting and Clinical Psychology*, 73(6), 1074-1088.

Retrieved on October 1, 2010.

Meloy, J.R., Cowett, P.Y., Parker, S.B., Hofland, B. & Friedland, A. (1997). Domestic Protection Orders

and the Prediction of Subsequent Criminality and Violence toward Protectees. *Psychotherapy:*

Therapy, Research, Practice, Training, 34(4), 447-458. Retrieved on October 1, 2010.

Parker, J.S., Morton, T.L., Lingefelt, M.E. & Johnson, K.S. (2005). Predictors of Serious and Violent

Offending by Adjudicated Male Adolescents. *North American Journal of Psychology,* 7(3), 407-

418. Retrieved on October 1, 2010.

Vitacco, M.J. & Neumann, C.S. (2002). Contributions of Impulsivity and Callousness in the Assessment of

Adjudicated Male Adolescents: A Prospective Study. *Journal of Personality Assessment,* 78(1),

87-103. Retrieved on October 1, 2010.

Reliability

Warnings

Each of the following component variables has zero variance and is removed from the scale: B, F, var27, var47
The determinant of the covariance matrix is zero or approximately zero. Statistics based on its inverse matrix cannot be computed and they are displayed as system missing values.

Scale: Violence

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.694	.789	60

Item Statistics

	Mean	Std. Deviation	N
A	1.3077	2.21446	65
C	.4000	1.08685	65
D	.4615	1.45856	65
E	.1538	.87018	65
G	.5077	1.13362	65
var1	.7846	1.58600	65
var2	.2923	.93078	65
var3	.6462	1.24286	65
var4	.0923	.52211	65
var5	.1077	.31240	65
var6	.3692	.99325	65
var7	.5077	1.13362	65
var8	1.2923	1.29570	65
var9	.3538	.95902	65

var10	.0923	.52211	65
var11	.1846	.58342	65
var12	.1692	.41718	65
var13	.2462	.66216	65
var14	.0462	.37210	65
var15	2.0462	3.20854	65
var16	.2769	.69614	65
var17	.8308	1.35288	65
var18	.1692	.37787	65
var19	.2769	.69614	65
var20	.1077	.86824	65
var21	.6769	1.25135	65
var22	.2462	.66216	65
var23	.7231	.99228	65
var24	1.7231	3.03885	65
var25	.1231	.33108	65
var26	.1846	.39100	65
var28	1.0000	1.11803	65
var29	.4615	1.45856	65
var30	.1538	.53709	65
var31	.1538	.87018	65
var32	1.6154	2.35646	65
var33	.0615	.24219	65
var34	2.7692	2.50480	65
var35	1.2308	2.17061	65
var36	.2308	.42460	65
var37	.3231	.93721	65
var38	1.6923	3.77874	65
var39	.0615	.34807	65
var40	.2308	1.05726	65
var41	.1077	.31240	65
var42	.0154	.12403	65
var43	1.4000	2.82179	65
var44	.2923	1.11416	65
var45	.1231	.33108	65
var46	1.0000	2.01556	65
var48	1.5077	2.90002	65
var49	.7077	.96377	65
var50	.0308	.17404	65
var51	.3692	.78201	65

var52	.2769	.87514	65
var53	.2154	1.21825	65
var54	.2923	.45836	65
var55	.1846	.39100	65
var56	.2308	.80563	65
var57	.0615	.24219	65

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.537	.015	2.769	2.754	180.000	.341	60
Item Variances	1.877	.015	14.279	14.263	928.125	8.442	60
Inter-Item Covariances	.068	-1.169	3.601	4.770	-3.079	.092	60
Inter-Item Correlations	.059	-.307	1.000	1.307	-3.261	.027	60

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
A	30.8923	334.723	.183	.	.690
C	31.8000	352.569	.017	.	.696
D	31.7385	352.227	.002	.	.698
E	32.0462	347.295	.197	.	.690
G	31.6923	345.716	.177	.	.690
var1	31.4154	348.122	.064	.	.695
var2	31.9077	352.241	.038	.	.694
var3	31.5538	334.220	.411	.	.679
var4	32.1077	353.629	.028	.	.694
var5	32.0923	354.179	.014	.	.694
var6	31.8308	345.174	.224	.	.688
var7	31.6923	345.623	.179	.	.689
var8	30.9077	353.710	-.019	.	.698
var9	31.8462	345.851	.215	.	.689
var10	32.1077	346.691	.385	.	.688
var11	32.0154	347.859	.287	.	.689
var12	32.0308	350.593	.235	.	.691
var13	31.9538	348.982	.203	.	.690
var14	32.1538	350.851	.248	.	.691
var15	30.1538	311.976	.284	.	.683

var16	31.9231	352.041	.073	.	.693
var17	31.3692	345.737	.137	.	.691
var18	32.0308	348.874	.384	.	.689
var19	31.9231	345.728	.318	.	.687
var20	32.0923	346.491	.223	.	.689
var21	31.5231	344.253	.186	.	.689
var22	31.9538	349.607	.178	.	.691
var23	31.4769	339.472	.383	.	.683
var24	30.4769	309.253	.336	.	.677
var25	32.0769	354.697	-.029	.	.694
var26	32.0154	349.797	.307	.	.690
var28	31.2000	345.694	.180	.	.689
var29	31.7385	334.884	.327	.	.682
var30	32.0462	354.670	-.025	.	.695
var31	32.0462	348.388	.163	.	.691
var32	30.5846	340.340	.098	.	.697
var33	32.1385	351.996	.263	.	.692
var34	29.4308	322.624	.284	.	.682
var35	30.9692	323.249	.339	.	.678
var36	31.9692	346.468	.493	.	.687
var37	31.8769	350.297	.093	.	.693
var38	30.5077	302.848	.284	.	.687
var39	32.1385	353.027	.099	.	.693
var40	31.9692	341.437	.304	.	.685
var41	32.0923	353.023	.113	.	.693
var42	32.1846	353.215	.260	.	.693
var43	30.8000	319.225	.270	.	.684
var44	31.9077	348.679	.109	.	.692
var45	32.0769	353.322	.081	.	.693
var46	31.2000	346.413	.053	.	.698
var48	30.6923	327.810	.174	.	.694
var49	31.4923	352.535	.027	.	.695
var50	32.1692	351.862	.391	.	.692
var51	31.8308	348.018	.199	.	.690
var52	31.9231	350.072	.110	.	.692
var53	31.9846	349.234	.082	.	.693
var54	31.9077	348.148	.356	.	.689
var55	32.0154	348.265	.413	.	.689
var56	31.9692	342.905	.365	.	.685
var57	32.1385	353.559	.091	.	.693

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
32.2000	354.444	18.82668	60

ANOVA with Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	F	Sig
Between People			378.073	64	5.907		
Within People	Between Items		1306.187	59	22.139	12.237	.000
	Residual	Nonadditivity	364.318[a]	1	364.318	212.659	.000
		Balance	6467.178	3775	1.713		
		Total	6831.496	3776	1.809		
	Total		8137.683	3835	2.122		
Total			8515.757	3899	2.184		

Grand Mean = .5367

a. Tukey's estimate of power to which observations must be raised to achieve additivity = .090.

Hotelling's T-Squared Test

Hotelling's T-Squared	F	df1	df2	Sig
1275.000	2.026	59	6	.189

Appendix B: Subscale Reliability

Scale: Self esteem

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.497	.629	7

Item Statistics

	Mean	Std. Deviation	N
var2	.2923	.93078	65
var12	.1692	.41718	65
var18	.1692	.37787	65
var26	.1846	.39100	65
var33	.0615	.24219	65
var50	.0308	.17404	65
var54	.2923	.45836	65

Inter-Item Correlation Matrix

	var2	var12	var18	var26	var33	var50	var54
var2	1.000	.313	.124	.107	-.081	.233	.016
var12	.313	1.000	.311	-.099	.205	.358	.146
var18	.124	.311	1.000	.102	.226	.395	.161
var26	.107	-.099	.102	1.000	.208	.145	.566
var33	-.081	.205	.226	.208	1.000	.325	.258
var50	.233	.358	.395	.145	.325	1.000	.081
var54	.016	.146	.161	.566	.258	.081	1.000

Inter-Item Covariance Matrix

	var2	var12	var18	var26	var33	var50	var54
var2	.866	.122	.044	.039	-.018	.038	.007
var12	.122	.174	.049	-.016	.021	.026	.028
var18	.044	.049	.143	.015	.021	.026	.028
var26	.039	-.016	.015	.153	.020	.010	.101
var33	-.018	.021	.021	.020	.059	.014	.029
var50	.038	.026	.026	.010	.014	.030	.006
var54	.007	.028	.028	.101	.029	.006	.210

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.171	.031	.292	.262	9.500	.010	7
Item Variances	.234	.030	.866	.836	28.603	.082	7
Inter-Item Covariances	.029	-.018	.122	.140	-6.658	.001	7
Inter-Item Correlations	.195	-.099	.566	.665	-5.733	.024	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var2	.9077	1.523	.201	.185	.594
var12	1.0308	2.218	.369	.316	.409
var18	1.0308	2.343	.315	.204	.436
var26	1.0154	2.359	.281	.411	.446
var33	1.1385	2.621	.217	.210	.478
var50	1.1692	2.580	.428	.303	.454
var54	.9077	2.241	.290	.394	.437

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.2000	2.850	1.68819	7

ANOVA with Tukey's Test for Nonadditivity

		Sum of Squares	df	Mean Square	F
Between People		26.057	64	.407	
Within People	Between Items	3.982	6	.664	

Residual	Nonadditivity	8.009[a]	1	8.009	4
	Balance	70.580	383	.184	
	Total	78.589	384	.205	
Total		82.571	390	.212	
Total		108.629	454	.239	

Grand Mean = .1714

a. Tukey's estimate of power to which observations must be raised to achieve additivity = -.016.

Hotelling's T-Squared Test

Hotelling's T-Squared	F	df1	df2	Sig
34.105	5.240	6	59	.000

Scale: Anger Reliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.550	.561	2

Item Statistics

	Mean	Std. Deviation	N
var1	.7846	1.58600	65
var21	.6769	1.25135	65

Inter-Item Correlation Matrix

	var1	var21
var1	1.000	.390
var21	.390	1.000

Inter-Item Covariance Matrix

	var1	var21
var1	2.515	.773
var21	.773	1.566

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.731	.677	.785	.108	1.159	.006	2
Item Variances	2.041	1.566	2.515	.950	1.606	.451	2
Inter-Item Covariances	.773	.773	.773	.000	1.000	.000	2
Inter-Item Correlations	.390	.390	.390	.000	1.000	.000	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var1	.6769	1.566	.390	.152	.[a]
var21	.7846	2.515	.390	.152	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.4615	5.627	2.37221	2

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			180.077	64	2.814		
Within People	Between Items		.377	1	.377	.297	.587
	Residual	Nonadditivity	5.127[a]	1	5.127	4.250	.043
		Balance	75.996	63	1.206		
		Total	81.123	64	1.268		

	Total	81.500	65	1.254		
Total		261.577	129	2.028		

Grand Mean = .7308

a. Tukey's estimate of power to which observations must be raised to achieve additivity = -1.290.

Scale: Callousness Reliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.325	.334	4

Item Statistics

	Mean	Std. Deviation	N
var3	.6462	1.24286	65
var9	.3538	.95902	65
var13	.2462	.66216	65
var35	1.2308	2.17061	65

Inter-Item Correlation Matrix

	var3	var9	var13	var35
var3	1.000	.277	.032	.222
var9	.277	1.000	.008	.125
var13	.032	.008	1.000	.003
var35	.222	.125	.003	1.000

Inter-Item Covariance Matrix

	var3	var9	var13	var35
var3	1.545	.330	.026	.599
var9	.330	.920	.005	.261
var13	.026	.005	.438	.005
var35	.599	.261	.005	4.712

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.619	.246	1.231	.985	5.000	.195	4
Item Variances	1.904	.438	4.712	4.273	10.746	3.709	4
Inter-Item Covariances	.204	.005	.599	.594	124.500	.052	4
Inter-Item Correlations	.111	.003	.277	.274	82.843	.012	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var3	1.8308	6.612	.299	.113	.123
var9	2.1231	7.953	.221	.081	.237
var13	2.2308	9.555	.018	.001	.374
var35	1.2462	3.626	.209	.054	.299

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
2.4769	10.066	3.17267	4

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			161.054	64	2.516		
Within People	Between Items		37.981	3	12.660	7.450	.000
	Residual	Nonadditivity	91.365[a]	1	91.365	74.288	.000
		Balance	234.904	191	1.230		
		Total	326.269	192	1.699		
	Total		364.250	195	1.868		

Total	525.304	259	2.028	

Grand Mean = .6192

a. Tukey's estimate of power to which observations must be raised to achieve additivity = -.220.

Scale: AnxietyReliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.297	.299	2

Item Statistics

	Mean	Std. Deviation	N
var8	1.2923	1.29570	65
var29	.4615	1.45856	65

Inter-Item Correlation Matrix

	var8	var29
var8	1.000	.176
var29	.176	1.000

Inter-Item Covariance Matrix

	var8	var29
var8	1.679	.332
var29	.332	2.127

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.877	.462	1.292	.831	2.800	.345	2
Item Variances	1.903	1.679	2.127	.449	1.267	.101	2
Inter-Item Covariances	.332	.332	.332	.000	1.000	.000	2
Inter-Item Correlations	.176	.176	.176	.000	1.000	.000	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var8	.4615	2.127	.176	.031	.[a]
var29	1.2923	1.679	.176	.031	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.7538	4.470	2.11417	2

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			143.031	64	2.235		
Within People	Between Items		22.431	1	22.431	14.274	.000
	Residual	Nonadditivity	1.440[a]	1	1.440	.915	.342
		Balance	99.129	63	1.573		
		Total	100.569	64	1.571		
	Total		123.000	65	1.892		

Total	266.031	129	2.062	

Grand Mean = .8769

a. Tukey's estimate of power to which observations must be raised to achieve additivity = 1.212.

Scale: Child Rearing Reliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.285	.390	3

Item Statistics

	Mean	Std. Deviation	N
var11	.1846	.58342	65
var49	.7077	.96377	65
var51	.3692	.78201	65

Inter-Item Correlation Matrix

	var11	var49	var51
var11	1.000	.097	.533
var49	.097	1.000	-.103
var51	.533	-.103	1.000

Inter-Item Covariance Matrix

	var11	var49	var51
var11	.340	.055	.243
var49	.055	.929	-.078

24

Inter-Item Covariance Matrix

	var11	var49	var51
var11	.340	.055	.243
var49	.055	.929	-.078
var51	.243	-.078	.612

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.421	.185	.708	.523	3.833	.070	3
Item Variances	.627	.340	.929	.588	2.729	.087	3
Inter-Item Covariances	.073	-.078	.243	.321	-3.123	.021	3
Inter-Item Correlations	.176	-.103	.533	.637	-5.160	.085	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var11	1.0769	1.385	.434	.308	-.225[a]
var49	.5538	1.438	-.020	.043	.676
var51	.8923	1.379	.180	.309	.159

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.2615	2.321	1.52353	3

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			49.518	64	.774		
Within People	Between Items		9.149	2	4.574	8.264	.000
	Residual	Nonadditivity	.951[a]	1	.951	1.727	.191

	Balance	69.901	127	.550		
	Total	70.851	128	.554		
	Total	80.000	130	.615		
Total		129.518	194	.668		

Grand Mean = .4205

a. Tukey's estimate of power to which observations must be raised to achieve additivity = .731.

Scale: Antisocial Reliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.418	.563	4

Item Statistics

	Mean	Std. Deviation	N
var19	.2769	.69614	65
var22	.2462	.66216	65
var35	1.2308	2.17061	65
var55	.1846	.39100	65

Inter-Item Correlation Matrix

	var19	var22	var35	var55
var19	1.000	.121	.495	.268
var22	.121	1.000	.112	.184
var35	.495	.112	1.000	.280
var55	.268	.184	.280	1.000

Inter-Item Covariance Matrix

26

	var19	var22	var35	var55
var19	.485	.056	.748	.073
var22	.056	.438	.161	.048
var35	.748	.161	4.712	.238
var55	.073	.048	.238	.153

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.485	.185	1.231	1.046	6.667	.249	4
Item Variances	1.447	.153	4.712	4.559	30.818	4.758	4
Inter-Item Covariances	.221	.048	.748	.700	15.707	.066	4
Inter-Item Correlations	.243	.112	.495	.383	4.415	.018	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var19	1.6615	6.196	.506	.265	.216
var22	1.6923	7.466	.146	.040	.425
var35	.7077	1.429	.442	.269	.370
var55	1.7538	7.563	.334	.121	.383

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.9385	8.434	2.90408	4

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			134.938	64	2.108		
Within People	Between Items		48.538	3	16.179	13.193	.000
	Residual	Nonadditivity	144.232[a]	1	144.232	301.968	.000
		Balance	91.229	191	.478		
		Total	235.462	192	1.226		
	Total		284.000	195	1.456		
Total			418.938	259	1.618		

Grand Mean = .4846

27

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

			Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People			134.938	64	2.108		
Within People	Between Items		48.538	3	16.179	13.193	.000
	Residual	Nonadditivity	144.232[a]	1	144.232	301.968	.000
		Balance	91.229	191	.478		
		Total	235.462	192	1.226		
	Total		284.000	195	1.456		
Total			418.938	259	1.618		

Grand Mean = .4846

a. Tukey's estimate of power to which observations must be raised to achieve additivity = -.160.

Scale: Depression Reliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.529	.643	3

Item Statistics

	Mean	Std. Deviation	N
var23	.7231	.99228	65
var28	1.0000	1.11803	65
var36	.2308	.42460	65

Inter-Item Correlation Matrix

	var23	var28	var36
var23	1.000	.239	.525
var28	.239	1.000	.362
var36	.525	.362	1.000

Inter-Item Covariance Matrix

	var23	var28	var36
var23	.985	.266	.221
var28	.266	1.250	.172
var36	.221	.172	.180

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	.651	.231	1.000	.769	4.333	.152	3
Item Variances	.805	.180	1.250	1.070	6.933	.310	3
Inter-Item Covariances	.220	.172	.266	.094	1.545	.002	3
Inter-Item Correlations	.375	.239	.525	.285	2.192	.016	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var23	1.2308	1.774	.368	.278	.388
var28	.9538	1.607	.309	.134	.550
var36	1.7231	2.766	.557	.335	.384

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
1.9538	3.732	1.93189	3

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

	Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People	79.621	64	1.244		
Within People — Between Items	19.733	2	9.867	16.854	.000
Residual — Nonadditivity	11.592[a]	1	11.592	23.241	.000
Balance	63.342	127	.499		
Total	74.933	128	.585		
Total	94.667	130	.728		
Total	174.287	194	.898		

Grand Mean = .6513

a. Tukey's estimate of power to which observations must be raised to achieve additivity = .219.

Scale: ImpulsivityReliability

Case Processing Summary

		N	%
Cases	Valid	65	100.0
	Excluded[a]	0	.0
	Total	65	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha[a]	Cronbach's Alpha Based on Standardized Items[a]	N of Items
-.024	-.039	2

a. The value is negative due to a negative average covariance

among items. This violates reliability model assumptions. You

may want to check item codings.

Item Statistics

	Mean	Std. Deviation	N
var31	.1538	.87018	65
var34	2.7692	2.50480	65

Inter-Item Correlation Matrix

	var31	var34
var31	1.000	-.019
var34	-.019	1.000

Inter-Item Covariance Matrix

	var31	var34
var31	.757	-.042
var34	-.042	6.274

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.462	.154	2.769	2.615	18.000	3.420	2
Item Variances	3.516	.757	6.274	5.517	8.286	15.218	2
Inter-Item Covariances	-.042	-.042	-.042	.000	1.000	.000	2
Inter-Item Correlations	-.019	-.019	-.019	.000	1.000	.000	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
var31	2.7692	6.274	-.019	.000	.[a]
var34	.1538	.757	-.019	.000	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
2.9231	6.947	2.63574	2

ANOVA with Friedman's Test and Tukey's Test for Nonadditivity

		Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People		222.308	64	3.474		
Within People	Between Items	222.308	1	222.308	62.486	.000
	Residual Nonadditivity	140.192[a]	1	140.192	100.938	.000

	Balance	87.500	63	1.389		
	Total	227.692	64	3.558		
Total		450.000	65	6.923		
Total		672.308	129	5.212		

Grand Mean = 1.4615

Appendix C: Quick Grading Guide

<div align="center">

Violent Crimes Predictor Quick Grading Guide

</div>

Self-Identifiers

Gender: _**5**_ Male _**0**_ Female

Highest level of Education Completed: _**10**_ Middle School _7_ Some High _0_ High School
                 or below   School   or above

Employment:
_0_ I am currently or have been previously regularly employed.
_1_ I have had irregular employment.
_5_ I have never been employed.

Family History
Parent's vocational training: Father _0_ Has training   _5__ Has no training _0_ I don't know
                               Mother _0_ Has training _0__ Has no training _0_ I don't know

Immediate Family Alcohol Abuse: _0_ Father __5_ Mother _0__ Neither __0_ I don't know

Immediate Family Psychiatric health:
_5_ Mother has been institutionalized. _0_ Father has been institutionalized.
_0_ Neither   _0_ I don't know

Pre-natal health: Check all that apply
_3_ Mother was known to have smoked cigarettes while pregnant with me.
_3_ Mother had complications while pregnant with me.
_0_ Neither
_0_ I don't know

Marking of boxes below indicate answers that receive points. Other answers receive no points.

■ I have a quick temper.

☐ I am able to do things as well as most other people.

■ I have difficulty knowing who to trust and when to trust.

■ I am unfairly underprivileged compared to my peers.

☐ People wish the best for me.

☐ I can tell when my actions have gone too far.

☐ I feel in control of my emotions.

☐ I would describe myself as a low-stress person.

■ I am unable to appropriately display my emotions.

■ I carry a weapon.

☐ I felt my parents were responsive to my needs as a child.

1. Checked: 4 points
2. Not Checked: 3 points

3. Checked: 3 points

4. Checked: 3 points

5. Not Checked: 1 point

6. Not Checked: 3 points

7. Not Checked: 3 points
8. Not Checked: 2 points

9. Checked: 3 points

10. Checked: 3 points
11. Not Checked: 2 points

☐ I make valuable contributions.

■ I am resistant to changing my current attitudes.

■ I often don't go to school.

☐ I behave appropriately in whatever situation I am in.

■ I was placed in more than 2 daycare centers before age 10.

■ I have problems concentrating.

☐ Most people like me.

☐ I like to be included.

☑ I am a member of a gang.

☑ I have been known to get angry about how I am treated.

☐ I value others' input.

☐ I am a high-spirited and cheerful person.

☑ I have spent a significant amount of time with someone who has committed a crime.

☑ I have been arrested.

☑ I wish I could have more respect for myself.

☑ I don't usually know when to stop a behavior.

☑ I have periods in which I feel devastated and/or depressed.

☑ I am anxious and fearful much of the time.

☑ I am not usually described as having a warm personality.

☐ I understand my actions will have consequences.

☑ I am always on guard to defend myself.

☐ I feel that I have a number of good qualities.

☑ I tend to regret some of my decisions.

☐ I have a lot of close friends.

☑ I often feel lonely.

☑ I sometimes continue a behavior even after being told to stop.

☐ I am able to empathize with others' feelings.

☑ I have been diagnosed with ADHD.

☑ I frequently have major health problems.

☑ I have been in legal trouble.

12. Not Checked: 1 point
13. Checked: 2 points

14. Checked: 3 points
15. Not Checked: 7 points

16. Checked: 2 points

17. Checked: 3 points
18. Not Checked: 1 point
19. Not Checked: 2 points
20. Checked: 7 points
21. Checked: 3 points

22. Not Checked: 2 points
23. Not Checked: 2 points
24. Checked: 7 points

25. Checked: 1 point
26. Checked: 1 point

27. Checked: 3 points

28. Checked: 2 points

29. Checked: 5 points

30. Checked: 2 points

31. Not Checked: 5 points

32. Checked: 5 points
33. Not Checked: 1 point

34. Checked: 5 points
35. Not Checked: 5 points
36. Checked: 1 point
37. Checked: 3 points

38. Not Checked: 10 points

39. Checked: 2 points
40. Checked: 5 points
41. Checked: 1 point

☑ I am a recreational user of stimulant drugs.

☐ I have a positive relationship with my family.

☑ My feelings are more important that others' feelings.

☑ I deserve everything that is given to me, regardless of whether I have to work for it.

☐ I have the resources to meet my needs.

☑ I had a criminal record before age 10.

☑ When I do something bad, I don't always have consequences.

☑ My parents practiced physical punishment.

☑ Overall, I feel that I am a failure.

☐ Growing up, I knew what my parents expected of me.

☐ I do well in school.

■ I use a weapon to defend myself.

■ I feel useless at times.

■ I let people know when I don't like them.

■ I have sold drugs.

■ I have been suspended from school.

42. Checked: 1 point

43. Not Checked: 7 points

44. Checked: 3 points

45. Checked: 1 point

46. Not Checked: 5 points
47. Checked: 10 points

48. Checked: 7 points

49. Checked: 2 points

50. Checked: 1 point
51. Not Checked: 2 points

52. Not Checked: 3 points
53. Checked: 7 points
54. Checked: 1 point
55. Checked: 1 point

56. Checked: 3 points
57. Checked: 1 point

Appendix D: Violent Crime Predictor Scoring Guide

Violent Crime Predictor Scoring Key

Self-Identifiers

Gender : Male = 5 points, female = 0 points

Highest level of education completed: Middle school or below = 10 points, some high school = 7 points, high school or above = 0 points

Employment:
I am currently or have been previously regularly employed = 0 points
I have had irregular employment = 1 point
I have never been employed = 5 points

Family History

Parent's vocational training:
Father: has training = 0 points, has no training = 5 points, I don't know = 0 points
Mother: regardless of answers, no points are awarded. Factor is unrelated to known predictors of violent criminality.

Immediate family alcohol abuse: Mother = 5 points, no points are awarded for other answers. Factor is unrelated to known predictors of violent criminality.

Immediate family psychiatric health: Mother has been institutionalized = 5 points. No points are awarded for other answers. Factor is unrelated to known predictors of violent criminality.

Pre-natal health
Mother was known to have smoked cigarettes while pregnant with me = 3 points
Mother had complications while pregnant with me = 3 points
No points are awarded for other answers. Factor is unrelated to known predictors of violent criminality.

1. Anger
    a. True = 4 points
    b. False = 0 points
2. Self-esteem
    a. True= 0 points
    b. False = 3 points
3. Callousness
    a. True = 3 points
    b. False = 0 points
4. Brooding

       a. True = 3 points

       b. False = 0 points

5. Paranoia

       a. True = 0 points

       b. False = 1 point

6. Deficient Inhibition

       a. True= 0 points

       b. False = 3 points

7. Hysteria

       a. True=0 points

       b. False = 3 points

8. Anxiety

       a. True=0 points

       b. False = 2 points

9. Callousness

       a. True= 3 points

       b. False = 0 points

10. Weapon carrying

       a. True = 3 points

       b. False = 0 points

11. Unstable child-rearing

       a. True = 0 points

       b. False = 2 points

12. Self-esteem

       a. True=0 points

       b. False = 1 point

13. Callousness

       a. True = 2 points

       b. False = 0 points

14. Truancy

       a. True = 3 points

       b. False = 0 points

15. Self-restraint

       a. True= 0 points

       b. False = 7 points

16. Unstable child-rearing

       a. True = 2 points

       b. False = 0 points

17. Concentration problems

       a. True = 3 point

       b. False = 0 points

18. Self-esteem

     a. True= 0 points

     b. False = 1 point

19. Anti-social

     a. True = 0 points

     b. False = 2 points

20. Gang membership

     a. True = 7 points

     b. False = 0 points.

21. Anger

     a. True = 3 points

     b. False= 0 points

22. Anti-social

     a. True=0 points

     b. False = 2 points

23. Depression

     a. True=0 points

     b. False = 2 points

24. Societal influences and peer delinquent behavior

     a. True=7 points

     b. False=0 points

25. Prior incarcerations

     a. True=1 point

     b. False=0 points

26. Self-esteem

     a. True = 1 point

     b. False = 0 points

27. Deficient Inhibition

     a. True = 3 points

     b. False = 0 points

28. Depression

     a. True = 2 points

     b. False = 0 points

29. Anxiety

     a. True = 5 points

     b. False = 0 points

30. Callousness

     a. True = 2 points

     b. False = 0 points

31. Impulsivity

     a. True = 0 points

     b. False = 5 points

32. Aggressiveness

      a.   True = 5 points

      b.   False = 0 points

33. Self-esteem
    a. True=0 points
    b. False =1 point

34. Impulsivity
    a. True = 5 points
    b. False = 0 points

35. Anti-social
    a. True = 0 points
    b. False = 2 points

36. Depression
    a. True=1 point
    b. False = 0 points

37. Deficient inhibition
    a. True=3 points
    b. False = 0 points

38. Empathy
    a. True = 0 points
    b. False = 10 points

39. Concentration problems
    a. True = 2 points
    b. False = 0 points

40. Health concerns
    a. True = 5 points
    b. False = 0 points

41. Prior incarcerations
    a. True=1 point
    b. False=0 points

42. Drug use—stimulants
    a. True= 1 point
    b. False = 0 points

43. Family relations
    a. True = 0 points
    b. False = 7 points

44. Narcissism
    a. True = 3 points
    b. False = 0 points

45. Entitlement
    a. True = 1 point
    b. False = 0 points

46. Resource availability

a. True = 0 points
b. False = 5 points

47. Onset of delinquency
    a. True=10 points
    b. False = 0 points

48. Expectations of being caught
    a. True = 7 points
    b. False = 0 points

49. Unstable child-rearing
    a. True = 2 points
    b. False = 0 points

50. Self-esteem
    a. True=1 point
    b. False = 0 points

51. Unstable child-rearing
    a. True = 0 points
    b. False = 2 points

52. School performance
    a. True = 0 points
    b. False = 3 points

53. Weapon use
    a. True = 7 points
    b. False = 0 point

54. Self-esteem
    a. True=1 point
    b. False = 0 points

55. Anti-social
    a. True = 1 point
    b. False = 0 points

56. Drug selling
    a. True = 3 points
    b. False = 0 points.

57. Suspension
    a. True= 1 point
    b. False= 0 points