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SAQ-Adult Probation III: Normative Study

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ABSTRACT

The SAQ-Adult Probation III (SAQ-AP III) is an adult offender assessment test that accurately measures offender risk of violence (lethality), aggressiveness, substance (alcohol and drugs) abuse, antisocial attitudes, emotional and mental health problems. There were 10,316 adult offenders included in this study. Reliability analyses showed that all seven SAQ-AP III scales had very high reliability coefficient alphas of between .85 and .93. SAQ-AP III scales were validated in several tests of validity. Discriminant validity was shown by significant differences on SAQ-AP III scale scores between first and multiple offenders. The Violence and Antisocial Scales correctly identified 100% of offenders who admitted they were violent and antisocial. The Alcohol and Drugs Scales correctly identified 100% of the offenders who had been treated for alcohol and drug problems. The Aggressiveness Scale correctly identified 100% of the offenders who admitted aggressiveness problems. SAQ-AP III classification of offender risk was shown to be very accurate. All SAQ-AP III scale scores were within 1.6% of predicted risk range percentile scores. This study demonstrated that the SAQ-AP III is a reliable, valid and accurate adult offender assessment test.

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Introduction

This study validates the adult offender assessment or screening test called the SAQ-Adult Probation III. Screening adult offenders to identify problems facilitates placement of offenders into appropriate supervision levels, intervention programs and treatment. Accurate and reliable offender risk and needs assessment is essential for defining offender populations for placement in programs such as ISPs (Intensive Supervision Programs, Fulton, Gendreau & Paparozzi, 1995).

According to Fulton, et al. (1995) risk and needs assessment should involve a compilation of criminal history along with other offender behavioral history which includes substance abuse, violence potential, personal antisocial factors and cognitive factors. For intervention and treatment programs to be effective offenders risk level must match programs intensity level. That is, high risk offenders placed in high risk programs and low risk offenders placed in low risk programs. Andrews, Bonta & Hoge (1990) found that placing low risk offenders in programs designed for high risk offenders can be harmful to them. The SAQ-AP III was designed specifically for the purpose of aiding decisions regarding offender placement and rehabilitation.

The SAQ-Adult Probation III (SAQ-AP III) is a multidimensional test that was developed to meet the needs of adult offender screening and assessment. SAQ-AP III scales measure violence (lethality) tendencies (Violence Scale), antisocial attitudes (Antisocial Scale), alcohol and drug

abuse severity (Alcohol & Drugs Scales), aggressiveness (Aggressiveness Scale), and emotional or mental health problems (Stress Coping Abilities Scale). In addition, the Truthfulness Scale measures offender truthfulness while completing the test. Offenders who deny or minimize their problems are detected by the Truthfulness Scale. Truthfulness Scale scores are used to truth-correct other scale scores. A test that is multidimensional lends itself to recidivism prediction. The present study investigated the reliability, validity and accuracy of the SAQ-AP III.

Violence, antisocial attitudes, aggressiveness and stress coping abilities are personality factors that are relevant to offender risk. These factors are measured by the SAQ-AP III. Personality, attitude and behavioral factors, often referred to as “dynamic variables,” are capable of change and are amenable to intervention and treatment. Positively changing offenders’ personality, attitudes and behavior can lead to behavioral change, which in turn can lead to reductions in recidivism. Identification of problem prone offenders is the first step in directing offenders to appropriate programs aimed at helping offenders to positively change their behavior.

For ease in interpreting offender risk, the SAQ-AP III scoring methodology classifies offender scale scores into one of four risk ranges: low risk (zero to 39th percentile), medium risk (40 to 69th percentile), problem risk (70 to 89th percentile), and severe problem risk (90 to 100th percentile). By definition the expected percentages of offenders scoring in each risk range (for each scale) is: low risk (39%), medium risk (30%), problem risk (20%), and severe problem risk (11%). Offenders who score at or above the 70th percentile are identified as having problems. Offenders scale scores at or above the 90th percentile identify severe problems. The accuracy of the SAQ-AP III in terms of risk range percentages was examined in this study.

This study validates the SAQ-AP III in a sample of adult offenders who were tested at corrections services programs. Two methods for validating the SAQ-AP III were used in this study. The first method (discriminant validity) compared first and multiple offenders’ scale scores. Multiple offenders were offenders with two or more arrests and first offenders had one or no arrest. It was hypothesized that statistically significant differences between multiple and first offenders would exist and SAQ-AP III scales would differentiate between first and multiple offenders. Multiple offenders would be expected to score higher on SAQ-AP III scales because having a second arrest is indicative of serious problems.

The second validation method (predictive validity) examined the accuracy at which the SAQ-AP III identified “problem offenders,” i.e., violent prone offenders, offenders with antisocial attitudes, inappropriately aggressive offenders, problem drinkers and problem drug abusers. Tests that measure severity of problems should be able to predict if offenders have problems by the magnitude (severity) of their scores. Accurate tests differentiate between problem and non-problem offenders. An inaccurate test, for example, may too often call non-problem drinkers problem drinkers or vice versa. Responses to test items obtained from the offenders’ served as criterion measures.

Having been in alcohol treatment identifies offenders as having an alcohol problem. It is acknowledged that there are some offenders who have an alcohol problem but have not been in treatment. Nevertheless, offenders who have been in alcohol treatment would be expected to score in the Alcohol Scale’s problem range. Similarly, having been in drug treatment identifies offenders who have drug problems. In regards to violence, antisocial attitude and aggressiveness, offenders direct admissions of problems were used as the criteria.

For the predictive validity analyses offenders were separated into two groups, those who had treatment or admitted problems (problem group) and those who did not have treatment or did not admit to problems (no problem group). Then, offender scores on the relevant SAQ-AP III scales were compared. It was predicted that problem group offenders would score in the problem risk range (70th percentile and above) on the relevant SAQ-AP III scales. Non-problem was defined in

terms of low risk scores (39th percentile and below). The percentage of problem group offenders who scored in the 70th percentile range and above is a measure of how accurate SAQ-AP III scales are. High percentages (above 90%) of problem group offenders who had problem risk scores would indicate the scales are accurate. Conversely, the percentages of problem group offenders who score in the low range are predicted to be very low (less than 10%). Because criterion measures were gotten from the SAQ-AP III database, a lack of suitable criterion measures prevented carrying out predictive validity analyses on the other two SAQ-AP III scales. The test items used in these analyses were, "I have been treated for a drinking problem," "I have been treated for a drug problem," "I have been arrested for assault or a violent crime," "Often or very often unsocial/hostile/antisocial," and "I know I am too pushy and aggressive."

Method

Subjects

There were 10,316 adult offenders tested with the SAQ-AP III. There were 7,901 males (76.6%) and 2,415 females (23.4%). The ages of the participants ranged from 18 through 60 as follows: 19 & under (14.1%); 20-29 (38.6%); 30-39 (25.2%); 40-49 (16.1%); 50-59 (4.4%) and 60 & Over (1.5%). The demographic composition of participants was as follows. Race/Ethnicity: Caucasian (61.0%); Black (26.0%), Hispanic (10.7%) and Other (1.8%). Education: Eighth grade or less (6.5%); Some high school (31.0%); High school graduate/GED (42.4%); Some college (13.4%) and College graduate (4.4%). Marital Status: Single (53.1%); Married (25.8%); Divorced (13.8%); Separated (5.6%) and Widowed (1.1%).

Over 64 percent of the participants were arrested two or more times. Twelve percent of the offenders had six or more arrests. Over one-third (39.5%) of the offenders had one or more felony arrests. Nearly one-fourth (22.9%) of the participants had two or more alcohol arrests and 12 percent had two or more drug arrests. Over 13 percent of the offenders had their first arrest before the age of 17 and half were arrested by the age of 21.

Procedure

Participants completed the SAQ-AP III as part of offender screening and assessment in court or probation settings. The SAQ-AP III contains seven measures or scales. These scales are briefly described as follows. The Truthfulness Scale measures the truthfulness, denial and problem minimization of the respondent while taking the SAQ-AP III. The Alcohol Scale measures severity of alcohol use or abuse. The Drugs Scale measures severity of drug use or abuse. The Aggressiveness Scale measures risk of problem prone aggressive behaviors. The Violence Scale measures offender proneness to commit violence. The Antisocial Scale measures antisocial behavior, e.g. lying, uncaring, irresponsible, unsocial, emotionally blunted, needless conning, etc. The Stress Coping Abilities Scale measures ability to cope with stress. A score at the 90th percentile or higher on this scale identifies established emotional and mental health problems.

Results and Discussion

The inter-item reliability coefficient alphas for the seven SAQ-AP III scales are presented in Table 1. All scales were highly reliable. Reliability coefficient alphas for all SAQ-AP III scales were at or above 0.85. These results demonstrate that the SAQ-AP III is a very reliable adult offender assessment test.

Table 1. Reliability of the SAQ-Adult Probation (N=10,316)

<u>SAQ-AP III SCALES</u>	<u>Coefficient Alphas</u>	<u>Significance Level</u>
Truthfulness Scale	.89	p<.001
Alcohol Scale	.93	p<.001
Drugs Scale	.92	p<.001
Antisocial Scale	.85	p<.001
Violence Scale	.86	p<.001
Aggressiveness Scale	.88	p<.001
Stress Coping Abilities	.92	p<.001

Discriminant validity results are presented in Table 2. In these analyses the answer sheet item “Total number of times arrested” was used to define first offenders (one or no arrest) and multiple offenders (2 or more arrests). T-test comparisons were used to study the statistical significance between the offender groups. There were 3,850 first offenders and 6,466 multiple offenders. The Alcohol and Drugs Scales were again analyzed using alcohol and drug arrests. “Number of alcohol arrests” was used for the Alcohol Scale, which had 8,094 first offenders and 2,222 multiple offenders (2 or more arrests). “Number of drug arrests” was used for the Drug Scale, which had 9,096 first offenders and 1,220 multiple offenders (2 or more arrests).

Table 2. Comparisons between first offenders and multiple offenders (N=10,316).

<u>SAQ-AP III Scale</u>	<u>First Offenders Mean</u>	<u>Multiple Offenders Mean</u>	<u>T-value</u>	<u>Level of significance</u>
Truthfulness Scale	14.09	15.30	t = 9.72	p<.001
Alcohol Scale	9.86	19.03	t = 48.70	p<.001
Drugs Scale	7.68	13.12	t = 27.82	p<.001
Antisocial Scale	10.50	16.23	t = 33.65	p<.001
Aggressiveness Scale	12.35	18.47	t = 41.96	p<.001
Violence Scale	11.73	15.92	t = 25.19	p<.001
Stress Coping Abilities	127.76	120.22	t = 7.71	p<.001
*Alcohol Scale	12.46	27.06	t = 46.61	p<.001
*Drugs Scale	9.57	22.44	t = 33.77	p<.001

*Note: Offender status defined by alcohol and drug arrests. The Stress Coping Abilities Scale is reversed in that higher scores are associated with better stress coping skills.

Table 2 shows that mean (average) scale scores of first offenders were significantly lower than scores for multiple offenders on all SAQ-AP III scales. As expected, multiple offenders scored significantly higher than did first offenders. Truthfulness Scale results indicate that multiple offenders tried to minimize their problems or fake good when tested more than did first offenders. Multiple offenders may have thought that having multiple arrests would be accompanied by increased consequences and tried to lessen their situation by faking good. All SAQ-AP III scales differentiated between first offenders and multiple offenders. These results support the validity of the SAQ-AP III.

As shown in Table 2, Alcohol Scale and Drugs Scale score differences were even more dramatic when offender status was defined by alcohol and drug arrests. The mean Alcohol Scale score for the multiple offender group, at 27.06, was over twice as high as the first offender group mean score which was 12.46. The mean Drugs Scale score for the multiple offender group (22.44) was also more than twice that of the first offender group mean score (9.57). The higher the SAQ-AP III scale

score the more severe the problem behavior. These results support the hypothesis that multiple offenders, because of their history of arrests, score higher than first-time offenders do.

Multiple offenders scored significantly higher on the Stress Coping Abilities Scale than did first offenders. Offenders who have multiple arrests demonstrate emotional problems beyond the expected problem-prone behaviors. Offenders' emotional and personality problems must be addressed if these offenders are to be helped. Changing offender problem-prone behavior entails resolving emotional and personality problems.

Correlation coefficients between offenders' criminal history and their SAQ-AP III scale scores are presented in Table 3. Statistically significant correlation coefficients between SAQ-AP III scales and criminal history variables also validate SAQ-AP III scale scores. SAQ-AP III scales that measure problem-prone behavior were expected to be correlated with variables that indicate offender problems, such as the number of times they have been arrested, their age at first arrest and probation records. For example, it is expected that the Alcohol Scale correlates with number of alcohol-related arrests and the Drugs Scale correlates with drug-related arrests. Offenders criminal histories were obtained from SAQ-AP III answer sheets that were completed by the offenders.

The SAQ-AP III scales included in this analysis were the Alcohol, Drugs, Antisocial, Violence and Aggressiveness Scales. These scales measure problem-prone behavior that can result in offender arrests. The Truthfulness and Stress Coping Abilities Scales are not included because these scales measure emotional and mental health factors.

Table 3. Relationships between Criminal History Variables and SAQ-AP III Scales

All correlation coefficients are significant at $p < .001$.

	<u>Alcohol Scale</u>	<u>Drugs Scale</u>	<u>Anti- social</u>	<u>Violence Scale</u>	<u>Aggres- siveness</u>
Age at first arrest	-.215	-.212	-.261	-.273	-.350
Total number of arrests	.442	.278	.382	.249	.413
Times on probation	.429	.268	.278	.185	.416
Alcohol arrests	.464	.078	.187	.107	.176
Drug arrests	.122	.418	.169	.123	.316

Age at first arrest is shown to be correlated with the Violence, Antisocial and Aggressiveness Scales. The negative coefficients indicate that the younger an offender is at their first arrest the higher their scale scores are. Total number of arrests is correlated with all of the SAQ-AP III scales. Number of times on probation is also correlated with all SAQ-AP III scales. The Alcohol Scale is significantly correlated with alcohol-related arrests. The Drugs Scale is significantly correlated with drug-related arrests. These results are in agreement with the discriminant validity results reported above. Significant correlations with alcohol and drug arrests support the validity of the Alcohol and Drugs Scales, respectively. The magnitude of the correlation coefficients are moderate and suggest that criminal history variables alone do not predict offender problems. SAQ-AP III scales, that measure problem-prone behaviors, are needed for accurate prediction of offender problems.

Predictive validity results for the correct identification of problem behavior (violence tendencies, aggressiveness, antisocial attitudes, drinking and drug abuse problems) are presented in Table 4. Table 4 shows the percentages of offenders that had or admitted to having problems and who scored in the problem risk range. For the Alcohol and Drugs Scales criteria, problem behavior means the offender had alcohol or drug treatment. For the Violence Scale criterion the offender admitted having been arrested for a violent crime. For the Antisocial Scale offenders admitted being antisocial and for the Aggressiveness Scale the offender admitted being too aggressive. In these

analyses scale scores in the Low risk range (zero to 39th percentile) represent “no problem,” whereas, scores in the Problem and Severe Problem risk ranges (70th percentile and higher) represent alcohol, drugs, violence, aggressiveness or antisocial problems.

The Alcohol Scale is very accurate in identifying offenders who have alcohol problems. There were 1,891 offenders who had been in alcohol treatment and these offenders were classified as problem drinkers. All 1,891 offenders, or 100 percent, had Alcohol Scale scores at or above the 70th percentile. The Alcohol Scale correctly identified all of the offenders categorized as problem drinkers. This result validates the Alcohol Scale. It is likely that some offenders have alcohol problems but have not been in treatment. For these individuals scoring at or above the 70th percentile on the Alcohol Scale alcohol treatment is recommended.

The Drugs Scale was also very accurate in identifying offenders who have drug problems. There were 1,875 offenders who had been in drug treatment, all 1,875 offenders, or 100 percent, had Drugs Scale scores at or above the 70th percentile. This result strongly substantiates the accuracy of the SAQ-AP III Drugs Scale.

Table 4. Predictive Validity of the SAQ-AP III

<u>SAQ-AP III Scale</u>	<u>Correct Identification of Problem Behavior</u>
Alcohol	100%
Drugs	100%
Violence	100%
Antisocial	100%
Aggressiveness	100%

The Violence Scale accurately identified offenders (**100%**) who admitted violence problems. Offenders who had been arrested for a violent crime scored in the problem range. The direct admission of a violence problem validates the Violence Scale. The Antisocial Scale accurately identified (**100%**) offenders who admitted to being antisocial. This result validates the Antisocial Scale. The Aggressiveness Scale identified all (**100%**) offenders who admitted being too aggressive. This result validates the Aggressiveness Scale. The Alcohol and Drugs Scale accurately identified offenders who had alcohol and drug problems. These results strongly support the validity of the SAQ-AP III Violence, Antisocial, Aggressiveness, Alcohol and Drugs Scales. The other two SAQ-AP III scales were not included in these analyses because of a lack of direct admission or other criterion measure within the SAQ-AP III database.

SAQ-AP III risk range percentile accuracy is presented in Table 5. Risk range percentile scores are derived from scoring equations based on offenders’ pattern of responding to scale items and criminal history, when applicable. There are four risk range categories: Low Risk (zero to 39th percentile), Medium Risk (40 to 69th percentile), Problem Risk (70 to 89th percentile) and Severe Problem or Maximum Risk (90 to 100th percentile). Risk range percentile scores represent degree of severity. The higher the percentile score is the higher the severity of the offender’s problems.

Analysis of the accuracy of SAQ-AP III risk range percentile scores involved comparing the offender’s obtained risk range percentile scores to predicted risk range percentages as defined above. The percentages of offenders expected to fall into each risk range are: Low Risk (**39%**), Medium Risk (**30%**), Problem Risk (**20%**) and Severe Problem or Maximum Risk (**11%**). These percentages are shown in parentheses in the top row of Table 5. The actual percentage of offenders falling in each of the four risk ranges, based on their risk range percentile scores, was compared to

these predicted percentages. The differences between predicted and obtained are shown in parentheses.

Table 5. Accuracy of SAQ-AP III Risk Range Percentile Scores

Scale	Low Risk (39% Predicted)		Medium Risk (30% Predicted)		Problem Risk (20% Predicted)		Severe Problem (11% Predicted)	
Truthfulness	39.3	(0.3)	29.7	(0.3)	19.2	(0.8)	11.8	(0.8)
Alcohol	39.1	(0.1)	30.6	(0.6)	19.8	(0.2)	10.5	(0.5)
Drugs	38.9	(0.1)	30.5	(0.5)	19.9	(0.1)	10.7	(0.3)
Antisocial	39.9	(0.9)	30.3	(0.3)	19.3	(0.7)	10.5	(0.5)
Violence	37.9	(1.1)	31.2	(1.2)	20.0	(0.0)	10.9	(0.1)
Aggressiveness	37.6	(1.4)	31.6	(1.6)	20.4	(0.4)	10.4	(0.6)
Stress Coping	38.8	(0.2)	30.0	(0.0)	20.7	(0.7)	10.5	(0.5)

As shown in Table 5, SAQ-AP III scale scores are very accurate. The objectively obtained percentages of participants falling in each risk range are very close to the expected percentages for each risk category. All of the obtained risk range percentages were within 1.6 percentage points of the expected percentages and most (24 of the 28) were within 1.0 percentage points. These results demonstrate that the SAQ-AP III scale scores accurately classify offender risk.

Obtained percentages set risk range cut-off scores. Scores associated with the 39th, 69th and 89th cumulative percentile separate offenders into the four risk ranges. This method standardizes scoring procedures in the SAQ-AP III. These results show that SAQ-AP III risk range percentile scores accurately classify offender risk.

Conclusion

This study demonstrates that accurate offender assessment is achieved with the SAQ-Adult Probation III (SAQ-AP III). Results corroborate and support the SAQ-AP III as an accurate assessment or screening test for adult offenders. The SAQ-AP III accurately measures offender risk of violence (lethality), substance (alcohol and drugs) abuse, antisocial behaviors, problem-prone aggressiveness, emotional and mental health problems. In short, the SAQ-AP III provides a wealth of information concerning offenders' adjustment and problems that contributes to understanding the offenders.

Reliability results demonstrated that all seven SAQ-AP III scales are highly reliable. Reliability is necessary in offender assessment or screening tests for accurate measurement of offender risk. Tests cannot be valid or accurate without being reliable. Validity analyses confirm that the SAQ-AP III measures what it purports to measure, that is, offender risk. Results demonstrate that repeat offenders exhibit more problem-prone behavior than first offenders. The SAQ-AP III accurately identified offenders who have problems. Multiple offenders (having 2 or more arrests) scored significantly higher than first offenders (discriminant validity). And, obtained risk range percentages on all SAQ-AP III scales very closely approximated predicted percentages. These results strongly support the validity of the SAQ-AP III.

Problem-prone individuals exhibit many characteristics that are identified with the SAQ-AP III. Relationships between offenders' criminal history variables and SAQ-AP III scale scores demonstrate that the SAQ-AP III measures relevant behaviors that identify offenders as problem-

prone. Identification of these problems and prompt intervention can reduce an offender's risk of future arrests or recidivism. The SAQ-AP III facilitates understanding of offender violence tendencies, substance abuse, antisocial attitudes, aggressive behavior, and emotional and mental health problems. SAQ-AP III results also provide an empirical basis for recommending appropriate supervision level, intervention and treatment programs.

One of the most important decisions regarding an offender is what supervision level, intervention program or treatment is appropriate for that offender. The SAQ-AP III can be used to select intervention (levels of supervision and treatment) for each offender based upon their assessment results. For example, scale scores in the low risk range suggest educational programs and minimum levels of supervision. Medium risk scores suggest counseling with medium levels of supervision, whereas, problem risk scores may require outpatient treatment along with increased supervision levels. Severe problem risk scores are often associated with intensive outpatient or even inpatient treatment. In short, the SAQ-AP III can be instrumental in establishing levels of supervision and when warranted recommend treatment and/or intervention options. Problem identification with appropriate treatment can reduce offenders' problem-prone behavior.

Many of the exacerbating conditions that act as problem-prone triggering mechanisms are also identified by the SAQ-AP III. The Alcohol and Drugs Scales measure substance abuse problems. The Stress Coping Abilities scales measure emotional and mental health problems. SAQ-AP III scale scores measure offender risk and identify offender needs. The SAQ-AP III is an important tool for decision making regarding offender supervision level, rehabilitation, and treatment. Positively changing offender behavior can lead to reductions in recidivism and crime.



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