

Juvenile Pretrial Test

An Inventory of Scientific Findings

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The JPT is designed specifically for juvenile courts, juvenile probation, special caseloads, counseling programs and adolescent community corrections.

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PREFACE

Juvenile Pretrial Test (JPT) research and development began in the 1980's and has continued to the present. The copyrighted JPT database ensures continued research and development. The JPT is a brief, easily administered and automated (computer scored) test that is designed for troubled youth, adolescent community corrections and juvenile substance (alcohol and other drugs) abuse assessment. It includes true/false and multiple choice items and can be completed in 30 minutes or less. The original JPT contained five empirically based scales: Validity (Truthfulness), Alcohol Severity, Drugs Severity, Distress and Adjustment. An additional scale – **Lethality (Violence)** was added in 1993 and in 1998 the **Stress Quotient Scale** was added. The JPT has been researched on adjudicated juvenile delinquents, students, juvenile offenders and others.

The JPT report explains client's attained scores and makes specific intervention and treatment recommendations. It also presents Truth-Corrected scores, significant items, a concise "structured interview" and much more. The JPT report is designed for juvenile probation use. In addition to treatment recommendations, this report presents specific probation recommendations. It is a risk and needs assessment instrument. The JPT has been researched on juvenile offenders and probationers. This document summarizes much of the JPT research.

The JPT has demonstrated reliability, validity and accuracy. It correlates impressively with both experienced staff judgment and other recognized tests. JPT tests can be given directly on the computer screen or in paper-pencil test booklet format. All tests are computer scored on-site. JPT reports are available within three minutes of test completion. Diskettes contain all of the software needed to score tests, build a database and print reports. The JPT Windows version also has an optional human voice audio presentation that presents the test on the computer screen with accompanying auditory presentation of the text seen on the computer screen.

JPT users are typically not clinicians or diagnosticians. Their role is usually to identify client risk, substance (alcohol and other drugs) abuse and client need prior to recommending intervention, supervision levels and/or treatment. The JPT is to be used in conjunction with a review of available records and respondent interview. No decision or diagnosis should be based solely on JPT results. Client assessment is not to be taken lightly as the decisions made can be vitally important as they affect people's lives. JPT research is ongoing in nature, so that evaluators can be provided with the most accurate information possible.

INTRODUCTION

JUVENILE PRETRIAL TEST

Increased public awareness of substance (alcohol and other drugs) abuse as a nationwide juvenile health problem has clarified the need for identification, intervention and treatment of these disorders. Troubled youth, their families, juvenile probation departments and juvenile courts are now requiring substantiation and documentation of juvenile staff decision-making. Substance (alcohol and other drugs) abuse problems must now be measured with quantitative risk-related recommendations substantiating intervention and treatment.

Juvenile Pretrial Test (JPT) test items were developed from large item pools. Item selection was initially a rational process by three psychologists and five juvenile corrections counselors having clearly understood definitions of each scale. The original pool of potential test items was analyzed and items with the best statistical properties were retained. The JPT test was then administered to a variety of juvenile groups, e.g., adjudicated delinquent juveniles, students and juvenile offenders. Test items with the best statistical properties have been retained.

Information on the JPT is available in the JPT Orientation & Training Manual. Computer scoring information is contained in the JPT Computer Operating Guide. Each of these manuals can be obtained upon request.

JPT MEASURES (SCALES)

Users of the JPT should be familiar with each JPT scale. A description of each JPT scale follows.

JPT SCALES

1. Validity (Truthfulness) Scale: measures the truthfulness of the client while they were completing the JPT. This scale identifies self-protective, defensive or guarded people who minimize or even fake answers.

2. Alcohol Severity Scale: measures the frequency and magnitude of alcohol-related problems. Alcoholism is a significant problem in our society.

3. Drugs Severity Scale: measures drug (e.g., marijuana, cocaine, crack, heroin, etc.) abuse problems. Increased awareness of illicit (or illegal) substance abuse and its effects on juveniles lives is a growing concern.

4. Distress Scale: measures troubled youth's anxiety and depression. Distress is the most common reason for troubled youth counseling.

5. Adjustment Scale: measures the youth's coping level, adaptation (e.g., home, school, family, peers, etc.) and functioning. How troubled youths adjust to their environment frequently determines if they remain trouble free.

6. Lethality (Violence) Scale: measures the adolescent's use of physical force to injure, damage, or

destroy. It identifies individuals that are dangerous to themselves and others.

7. Stress Quotient Scale: measures a person's experienced stress level in comparison to that person's ability to cope with stress.

The following studies summarize research conducted on a variety of youths, e.g., adjudicated juvenile delinquents, students, juvenile offenders and community corrections clients.

JPT research is presented chronologically in the order it was conducted. Chronological presentation enables the reader to follow the evolution of the JPT into a state-of-the-art automated (computerized) screening instrument. More recent studies (toward the end of this document) are most representative of current JPT statistics.

JPT RESEARCH

Initially, a large item pool was rationally developed for JPT scale consideration. Consensual agreement among three Ph.D. level psychologists and five juvenile corrections counselors familiar with JPT scale definitions reduced the initial item pool markedly. Final item selection was empirical - comparing statistically related item configurations to known substance abuse groups. Items chosen had acceptable inter-item reliability coefficients and correlated highest with their respective scales. Final item selection was based on each item's statistical properties. Items with the best statistical properties were retained. The JPT was then objectively standardized and normed on juvenile populations.

1. A Study of JPT Test-Retest Reliability

Any approach to detection, assessment, or measurement must meet the criteria of reliability and validity. Reliability refers to an instrument's consistency of results regardless of who uses it. This means that the outcome must be objective, verifiable, and reproducible. Ideally, the instrument or test must also be practical, economical, and accessible. Psychometric principles and computer technology insures JPT accuracy, objectivity, practicality, cost-effectiveness and accessibility.

Reliability is a measure of the consistency of a test in obtaining similar results upon re-administration of the test. One measure of test reliability, over time, is the test-retest correlation coefficient. In this type of study, the test is administered to a group and then the same test is re-administered to the same group at a later date.

Method

College students at two different colleges enrolled in introductory psychology classes participated in this study (1984). A total of 115 students participated and received class credit for their participation. The students were administered the JPT in a paper-pencil test format. One week later they were re-tested with the JPT again.

Results

The results of this study revealed a significant test-retest product-moment correlation coefficient of $r = 0.71$, $p < .01$. These results support the reliability of the JPT. Test-retest consistency was very high and indicates that the JPT scores are reproducible and reliable over a one week interval.

2. Validation of the Validity (Truthfulness) Scale

The Validity (Truthfulness) Scale in the JPT is an important psychometric scale as these scores establish how truthful the respondent was while completing the JPT. Truthfulness Scale scores determine whether or not JPT profiles are accurate and are integral to the calculation of Truth-Corrected JPT scale scores.

The Truthfulness Scale identifies respondents who are self-protective, recalcitrant and guarded, as well as those who minimized or even concealed information while completing the test. Truthfulness Scale items are designed to detect respondents who try to fake good or put themselves into a favorable light. These scale items are statements about oneself that most people would agree to. The following statement is an example of a Truthfulness Scale item, "Sometimes I worry about what others think or say about me."

This preliminary study used the 21 Truthfulness Scale items in the JPT to determine if these Truthfulness Scale items could differentiate between respondents who were honest from those trying to fake good. It was hypothesized that the group trying to fake good would score higher on the Truthfulness Scale than the group instructed to be honest.

Method

Seventy-eight Arizona State University college students (1985) enrolled in an introductory psychology class were randomly assigned to one of two groups. Group 1 comprised the "Honest" group and Group 2 comprised the "Fakers" group. Group 1 was instructed to be honest and truthful while completing the test. Group 2 was instructed to "fake good" while completing the test, but to respond "in such a manner that their faking good would not be detected." The test, which included the JPT Validity (Truthfulness) Scale, was administered to the subjects and the Truthfulness Scale was embedded in the test as one of the five scales. Truthfulness Scale scores were made up of the number of deviant answers given to the 21 Truthfulness Scale items.

Results

The mean Truthfulness Scale score for the Honest group was 2.71 and the mean Truthfulness Scale score for Fakers was 15.77. The results of the correlation (product-moment correlation coefficient) between the Honest group and the Fakers showed that the Fakers scored significantly higher on the Truthfulness Scale than the Honest group ($r = 0.27$, $p < .05$).

The Truthfulness Scale successfully measured how truthful the respondents were while completing the test. The results of this study reveal that the Validity (Truthfulness) Scale accurately detects "Fakers" from those students that took the test honestly.

3. Validation of the JPT Validity (Truthfulness) Scale using Criterion Measures

In general terms, a test is valid if it measures what it is supposed to measure. The process of confirming this statement is called validating a test. A common practice when validating a test is to compute a correlation between it and another (criterion) test that purports to measure the same thing and that has

been previously validated. For the purpose of this study (1989), the JPT Validity (Truthfulness) Scale was validated with comparable scales on the Minnesota Multiphasic Personality Inventory (MMPI). The MMPI was selected for this validity study because it is the most researched, validated and widely used objective personality test in the United States. The JPT Truthfulness Scale was validated with the MMPI F Scale and L Scale. High scores on the F scale indicate lack of cooperation, desire to fake bad, haphazard approach to testing or failure to understand the items. High L Scale scores indicate attempts to fake good, deceptiveness or a need to appear in a good light. High scores on the JPT Truthfulness Scale reflect guardedness, evasiveness, recalcitrance or impaired reading abilities.

Method

Thirty-three (33) adjudicated delinquent adolescents (1989) were administered both the JPT and the MMPI. Tests were counterbalanced for order effects -- half were given the JPT first and half the MMPI first. There were 29 males and 4 females and they ranged in age from 15 to 18 years (average age 16.1). All participants had at least a 6th grade equivalent reading level.

Results and Discussion

Product-moment correlation coefficients were calculated between JPT scales and MMPI scales. These results are summarized in Table 1. Correlation results presented in Table 1 show that the JPT Truthfulness Scale significantly correlated (.01 level of significance) with all represented MMPI scales. In addition, the correlations were in predicted directions.

**Table 1. (1989) Product-moment correlations
between MMPI scales and JPT Validity (Truthfulness) Scale**

<u>MMPI SCALES (MEASURES)</u>	<u>JPT Scale (Measure)</u>	
	Truthfulness	Significance Level
F Scale	0.687	0.01
L (Lie) Scale	0.590	0.01

These findings strongly support the validity of the JPT Truthfulness Scale. The JPT Truthfulness Scale was highly correlated with the MMPI criterion scales it was tested against. The large correlation coefficients support the validity of the JPT Truthfulness Scale. The product-moment correlation coefficients testing the relation between JPT Validity (Truthfulness) Scale and MMPI scales were significant at the $p < .01$ level.

4. Validation of JPT Scales

The JPT is a juvenile assessment instrument. It is designed for use in schools, counseling programs, juvenile courts, juvenile probation and adolescent community corrections. The JPT is a specific test designed for a specific population. The present study (1989) was conducted to validate JPT scales.

Selected scales in the Minnesota Multiphasic Personality Inventory (MMPI) were used as criterion measures for the different JPT scales. The Validity (Truthfulness) Scale was validated with MMPI L Scale. The Alcohol Severity Scale was validated with the MMPI MacAndrew Scale. The Drugs Severity Scale was validated with the MacAndrew Scale and the Psychopathic Deviate Scale. The Distress Scale was validated with the MMPI Taylor Manifest Anxiety Scale and Depression Scale. The Adjustment Scale was validated with the MMPI Manifest Hostility Scale and Authority Conflict Scale. The MMPI scales were chosen to compare to the JPT scales because they measure similar attributes.

Method

The subjects used in the study (1989) were 100 juvenile offenders. There were 86 males and 14 females. Their ages ranged between 15 and 18 years with a mean age of 16.2 years of age. All participants had a 6th grade or better reading level. The JPT and MMPI were administered in counterbalanced order.

Results and Discussion

The product-moment correlation results are summarized in Table 2.

Table 2. JPT-MMPI Product-moment Correlations (1989, N=100)

MMPI SCALES (MEASURES)	JPT SCALES (MEASURES)	Correlation Coefficient	Significance Level
L (Lie)	Truthfulness	0.57	0.01
MacAndrew	Alcohol	0.61	0.01
MacAndrew	Drugs	0.57	0.01
Psychopathic Deviate	Drugs	0.52	0.01
Taylor Manifest Anxiety Depression	Distress	0.57	0.01
Manifest Hostility	Distress	0.56	0.01
Authority Conflict	Adjustment	0.55	0.01
	Adjustment	0.53	0.01

These findings strongly support the validity of the JPT scales in this sample of juvenile offenders. All of the JPT scales were highly correlated with the MMPI criterion scales they were tested against. The large correlation coefficients support the JPT as a valid instrument for juvenile assessment.

The JPT demonstrates concurrent validity with the Minnesota Multiphasic Personality Inventory (MMPI). The MMPI is the most widely accepted and respected personality test in the United States. Validity refers to a test measuring what it is purported to measure. The quality of a test is largely determined by its validity. Concurrent (criterion related) validity correlates the independent scales of the test being validated with corresponding measures from an established test. The JPT - MMPI relationships are impressive and support the validity of the JPT.

5. Replication Study of the Validation of JPT Scales

Another study was conducted (1990) to replicate a previous validation study of the JPT scales and to further evaluate the validity of the JPT in a different juvenile sample. Again, selected scales in the Minnesota Multiphasic Personality Inventory (MMPI) were used as criterion measures for the different JPT scales. The Truthfulness Scale was validated with MMPI L Scale. The Alcohol Severity Scale was validated with the MMPI MacAndrew Scale. The Drugs Severity Scale was validated with the MacAndrew Scale and the Psychopathic Deviate Scale. The Distress Scale was validated with the MMPI Depression Scale and Psychasthenia Scale. The Adjustment Scale was validated with the MMPI Delinquency Scale and Family Discord Scale.

Method

The subjects used in this study (1990) were 35 private school students. There were 19 males and 16 females. Their ages ranged between 15 and 18 years of age. The JPT and MMPI were administered in counterbalanced order.

Results and Discussion

The product-moment correlation results are summarized in Table 3. Since this study is important in understanding JPT validity, each JPT scale is briefly summarized below.

Table 3. JPT-MMPI Product-moment Correlations (1990, N=35)

MMPI SCALES (MEASURES)	<u>Private School Students</u>		
	<u>JPT SCALES (MEASURES)</u>	Correlation Coefficient	Significance Level
L (Lie)	Truthfulness	0.41	0.01
MacAndrew	Alcohol	0.51	0.01
MacAndrew	Drugs	0.39	0.01
Psychopathic Deviate	Drugs	0.53	0.01
Depression	Distress	0.40	0.01
Psychasthenia	Distress	0.44	0.01
Delinquency	Adjustment	0.42	0.01
Family Discord	Adjustment	0.39	0.01

These findings are consistent with the results of the previous validation study and strongly support the validity of the JPT scales in this sample of private school students. All of the JPT scales were highly correlated with the MMPI criterion scales they were tested against. This study supports the JPT as a valid instrument for juvenile assessment.

The JPT **Validity (Truthfulness) Scale** correlates significantly and in the predicted direction with the MMPI L Scale. When a person attains a high L Scale score on the MMPI, this invalidates other MMPI scale scores due to untruthfulness. Similarly, a high score on the JPT Truthfulness Scale invalidates the other JPT scale scores.

The JPT **Alcohol Severity Scale** correlates significantly and in predicted direction with the MMPI MacAndrew alcoholism scale. This is consistent with the conceptual description of the alcohol scale.

The JPT **Drugs Severity Scale** correlates significantly and in predicted directions with the MacAndrew and the Psychopathic Deviate (PD) MMPI scales. High PD and MacAndrew MMPI scale scores are often found to be associated with substance (alcohol and other drugs) abuse. The JPT Drugs Severity Scale is an independent measure (scale) from the JPT Alcohol Severity Scale. Without independent measures of alcohol and drugs, many drug (marijuana, cocaine, crack, heroin, etc.) abusers would remain undetected.

The JPT **Distress Scale** correlates significantly and in predicted directions with the MMPI Depression (D) and Psychasthenia (PT) scales. Distress incorporates both anxiety and depression. Psychasthenia is a measure of anxiety, self-concern and self-doubt.

The JPT **Adjustment Scale** correlates significantly and in predicted directions with the MMPI Manifest Hostility Scale, MMPI Authority Conflict Scale, MMPI Delinquency (DL) Scale and MMPI Family Discord Scale. This is consistent with the conceptual description of the JPT Adjustment scale.

Several MMPI scales were selected for representation in these validity studies because an empirical relationship was predicted with the JPT scales. All JPT scale correlation's were significant and in predicted directions. These empirical findings strongly support the validity of the JPT.

6. Inter-item Reliability of the JPT

Reliability is a measure of the consistency of a test in obtaining similar results upon re-administration. Within-test reliability measures to what extent a test with multiple scales measuring different factors, measures each factor independent of the other factors (scales) in the test. It also measures to what extent items in each scale consistently measures the particular trait (or factor) that scale was designed to measure. Within-test reliability measures are referred to as inter-item reliability. The most common method of reporting within-test (scale) inter-item reliability is with Coefficient Alpha.

Method

This study (1989) included two separate groups of subjects: 98 private school students, 151 adjudicated delinquents -- totaling 249 subjects. Separate inter-item reliability analyses were conducted to compare results across the two groups.

Results and Discussion

The inter-item reliability coefficient alpha and within-test reliability statistics are presented in Table 4. All inter-item reliability coefficient alphas and within-test reliability F-values are significant at $p < .001$. These results support the reliability of the JPT. The JPT is a highly reliable instrument.

**Table 4. Inter-item reliability, coefficient alpha. (1989)
Private School Students and Adjudicated Delinquents (N = 249)**

JPT SCALES MEASURES	Private School Students (N = 98)	Adjudicated Delinquents (N = 151)
Truthfulness Scale	0.81	0.83
Alcohol Severity Scale	0.86	0.87
Drugs Severity Scale	0.80	0.85
Distress Scale	0.73	0.89
Adjustment Scale	0.81	0.87

These results demonstrate the impressive reliability of the JPT. Reliability was demonstrated with two different groups of youths (private school students and adjudicated delinquents) taking the JPT.

In each of these subject samples, all JPT scales (measures) were found to be significantly independent of the other JPT scales as shown by the highly significant within-test F statistics. The F statistic is obtained in within-subjects between measures ANOVA performed on each individual JPT scale in each of the samples.

The F statistics show that each JPT scale measures essentially one factor (or trait). In addition, all JPT scales show high inter-item reliability. This is demonstrated by the Standardized Cronbach's Coefficient Alpha - a widely used test of inter-item reliability when using parallel models. This measure reveals that all items in each JPT scale are significantly related and measure just one factor. In other words, each JPT scale measures one factor, yet the factor being measured is different from scale to scale.

The inter-item reliability coefficients show very similar results across the two subject samples. The Validity (Truthfulness) Scale, Alcohol Severity Scale, Drugs Severity Scale and Adjustment Scale are in close agreement. The Distress Scale has a somewhat lower coefficient alpha than the other JPT scales for the private school students group perhaps because this scale is not as specific as, say alcohol or drug

abuse or that interpretation of distress varies in student populations. These results show that the JPT is a reliable instrument.

7. Replication of JPT Reliability in a Large Sample of Adjudicated Delinquents

In a replication of earlier JPT research, adjudicated delinquents (1990) were used to evaluate the reliability of the JPT scales. This study involved combining adjudicated delinquent JPT test data from three jurisdictions. Because the JPT is a risk and needs juvenile assessment instrument it is important to study JPT statistical reliability in different juvenile offender samples.

Method and Results

The JPT was administered to 433 adjudicated delinquents from three different jurisdictions. All of the participants were between the ages of 15 and 18 years. Juvenile reading levels were not available. There were 273 males and 160 females. The inter-item coefficient alpha statistics are presented in Table 5. These results are in close agreement to reliability results obtained in an earlier study using adjudicated juvenile delinquents. In some cases the coefficient alphas are higher in the present study as in the previous study. The results of the present study support the reliability of the JPT.

**Table 5. Inter-item reliability, coefficient alpha.
Adjudicated juvenile delinquents (1990, N = 433).**

<u>JPT SCALES MEASURES</u>	<u>COEFFICIENT ALPHA</u>	<u>SIGNIFICANCE LEVEL</u>
Truthfulness Scale	0.85	p < 0.001
Alcohol Severity Scale	0.87	p < 0.001
Drugs Severity Scale	0.89	p < 0.001
Distress Scale	0.88	p < 0.001
Adjustment Scale	0.87	p < 0.001

In all of the subject samples studied, the JPT scales were demonstrated to be independent measures. This mutual exclusivity (significant at $p < .001$) was demonstrated by a within-subjects measures ANOVA performed on each JPT scale. These analyses demonstrate that each JPT scale measures one factor or trait. All JPT scales demonstrate high inter-item congruency, as reflected in the standardized Cronbach Coefficient Alpha. The items on each JPT scale are significantly related to the factor or trait each scale was designed to measure. In other words, each JPT scale measures one factor, and the factor (or trait) being measured differs from scale to scale.

JPT scales (measures) have been shown to be both mutually exclusive and have high inter-item scale consistency. The JPT has acceptable and empirically demonstrated reliability. In addition, inter-item reliability studies have shown that each JPT scale is an independent measure of the trait (factor) it was designed to measure.

This study supports the reliability (internal consistency) of the Juvenile Pretrial Test. The JPT scales are highly reliable in the offender population for whom the JPT is designed.

8. JPT Reliability Study in a Samples of Juvenile Offenders

The present (1991) study was conducted to evaluate the statistical properties of the JPT in a different juvenile sample. As the JPT becomes more widely used it will continue to be our policy to continue to

investigate statistical (reliability) properties on the various adolescent population databases.

Method

The participants in this study (1991) consisted of 372 juvenile offenders. The demographic composition of the sample was as follows: Gender: 290 males and 82 females. Age: 9 years old (2, 0.7%); 10 years old (2, 0.7%); 11 years old (3, 1.0%); 12 years old (12, 4.1%); 13 years old (16, 5.5%); 14 years old (35, 12.1%); 15 years old (70, 24.1%); 16 years old (64, 22.1%); 17 years old (63, 21.7%); 18 years old (21, 7.2%); and 19 years old (2, 0.7%). Thus, 197 troubled youths or 67.9% were 15, 16 or 17 years old. Ethnicity: Caucasian (228, 78.6%); Black (44, 15.2%); Hispanic (8, 2.8%); Asian (1, 0.3%); American Indian (8, 2.8%); and Other (1, 0.3%). Education: 6th grade or less (27, 9.3%); 7th grade (32, 11.0%); 8th grade (55, 19.0%); 9th grade (76, 26.2%); 10th grade (43, 14.8%); 11th grade (9, 3.1%); High School Graduate (9, 3.1%); and Partially Completed College (3, 1.0%).

Results and Discussion

Reliability coefficient alphas are presented in Table 6. Number of participants = 372.

Table 6. Reliability coefficient alphas. (1991, N = 372)
All coefficient alphas are significant at p<.001.

JPT Scales	Juvenile Offenders N = 372	Significance Level p<
Truthfulness Scale	0.84	0.001
Alcohol Severity Scale	0.85	0.001
Drugs Severity Scale	0.85	0.001
Distress Scale	0.84	0.001
Adjustment Scale	0.84	0.001

The results of this study demonstrate the reliability (internal consistency) of the JPT. Reliability coefficient alphas for all JPT scales are very high. These results strongly support the reliability of the JPT.

9. A Study of JPT Reliability in a Sample of Students

This (1992) study was conducted to evaluate the statistical reliability of the JPT in an adolescent student sample. As the population of juveniles could conceivably consist of widely varying individuals, it is important to continue to investigate statistical (reliability) properties on the various juvenile population databases.

Method and Results

This study (1992) involved 958 students (675 males and 283 females). The demographic composition of the sample was the following. Age: 12 years and younger (1, 0.1%); 13 years of age (49, 5.1%); 14 years of age (116, 12.1%); 15 years of age (167, 17.4%); 16 years of age (252, 26.3%); 17 years of age (248, 25.9%); 18 years of age (75, 7.8%); 19 years of age (29, 3.0%) and 20 years of age or older (14, 1.4%). Thus, 923 or 81.7% of these students were between 14 and 17 years of age. Ethnicity: Caucasian (755, 78.8%); Black (70, 7.3%); Hispanic (79, 8.2%); Asian (3, 0.3%); American Indian (10, 1.0%) and Other (1, 0.1%). Education: 6th grade or less (26, 2.7%); 7th grade (88, 9.2%); 8th grade (148, 15.4%); 9th grade (213, 22.7%); 10th grade (234, 24.4%); 11th grade (167, 17.4%); High School Graduate/G.E.D. (52, 5.4%); and Some College (29, 3.0%).

Coefficient Alpha reliability (internal consistency) coefficients are presented in Table 7.

Table 7. Reliability coefficient alphas. (1992, N=958)
All reliability coefficients are significant at p<.001.

<u>JPT Scales</u>	<u>Coefficient Alpha</u>
Truthfulness Scale	.85
Alcohol Severity Scale	.85
Drugs Severity Scale	.85
Distress Scale	.84
Adjustment Scale	.85

This study supports the reliability of the JPT. The coefficient alpha is the most widely used statistic of internal consistency or reliability. The JPT produces similar results upon repetition. The JPT is a reliable juvenile assessment instrument.

10. A Study of JPT Reliability in a Sample of Juvenile Offenders

The present study (1993) was conducted to investigate reliability of the JPT using juvenile offender participants. Since the JPT is a risk and needs assessment instrument designed for troubled youth, it is important to test the reliability of the JPT on juvenile offenders.

Method and Results

There were 1,707 juvenile offender participants included in this study (1993). There were 1,705 males and 2 females. The demographic composition of these participants is the following: Age: Eleven years or younger (6, 0.4%); 12 years of age (23, 1.3%); 13 years of age (140, 8.2%); 14 years of age (270, 15.8%); 15 years of age (457, 26.8%); 16 years of age (582, 34.1%); 17 years of age (168, 9.8%); 18 years of age and older (61, 3.6%). Ethnicity: Caucasian (552, 32.3%); Black (1,127, 66.0%); Hispanic (10, 0.6%); Asian (1, 0.1%); American Indian (1, 0.1%); and missing information (9, 0.5%). Education: 6th grade or less (170, 10.0%); 7th grade (320, 18.7%); 8th grade (579, 33.9%); 9th grade (462, 27.1%); 10th grade (133, 7.8%); 11th grade (15, 0.9%); High School Graduate/G.E.D. (3, 0.2%); Some College (1, 0.1%); and missing information (24, 1.4%).

Reliability coefficient alphas are presented in Table 8. All coefficient alphas were significant at p<.001. These results support the reliability of the JPT in the assessment of juvenile offender participants.

These results are in close agreement with reliability coefficient alphas found in previous JPT studies. These results again demonstrate the internal consistency of the JPT. The JPT is a reliable risk and needs assessment instrument juvenile offender assessment.

Table 8. Reliability coefficient alpha. Juvenile offenders (1993, N = 1,707).

All coefficient alphas are significant at $p < .001$.

<u>JPT Scales</u>	<u>Coefficient Alpha</u>
Truthfulness Scale	.85
Alcohol Severity Scale	.88
Drugs Severity Scale	.89
Distress Scale	.85
Adjustment Scale	.84

11. A Study of the JPT Lethality (Violence) Scale

Violence became a major concern in juvenile court and probation department assessment in the 90's. Consequently, a Lethality (Violence) Scale was added to the JPT in 1993. In addition to the five JPT Scales (Validity (Truthfulness) Scale, Alcohol Severity Scale, Drugs Severity Scale, Distress Scale and the Adjustment Scale) a sixth scale was added -- Lethality (Violence) Scale.

Juvenile courts and probation departments desiring to know how violence prone the juvenile offender is can use the JPT for violence (lethality) assessment. The purpose of the present study (1994) was to test the reliability of the JPT. The subjects used in this study were juvenile adjudicated defendants.

Method and Results

There were two groups of juvenile participants included in this study (1994). There were 459 participants in Group 1 and 462 participants in Group 2. Demographic composition of **Group 1** participants is as follows: Age: 12 years old (8, 1.7%); 13 years (19, 4.1%); 14 years (68, 14.8%); 15 years (114, 24.8%); 16 years (137, 29.8%); 17 years (103, 22.4%); 18 years (7, 1.5%) and missing information (3, 0.7%). Ethnicity: Caucasian (227, 49.5%); Black (90, 19.6%); Hispanic (75, 16.3%); Asian (8, 1.7%); American Indian (5, 1.1%); Other (26, 5.7%) and missing information (28, 6.1%). Education: 7th grade or less (19, 4.2%); 8th grade (43, 9.4%); 9th grade (93, 20.3%); 10th grade (122, 26.6%); 11th grade (96, 20.9%); High School Graduate/G.E.D. (12, 2.6%); Some College (2, 0.4%) and missing information (72, 15.7%).

Group 2 demographic composition is as follows: There were 356 males and 106 females. Age: 12 years old (7, 1.5%); 13 years (26, 5.6%); 14 years (75, 16.2%); 15 years (99, 21.4%); 16 years (144, 31.2%); 17 years (99, 21.0%); 18 years (11, 2.4%); 19 years and older (3, 0.6%) and missing information (1, 0.2%). Race: Caucasian (312, 67.5%); Black (43, 9.3%); Hispanic (58, 12.6%); Asian (3, 0.6%); American Indian (37, 8.0%); Other (7, 1.5%) and missing information (2, 0.4%). Education: 6th grade or less (19, 4.1%); 7th grade (44, 9.5%); 8th grade (91, 19.7%); 9th grade (105, 22.7%); 10th grade (100, 21.6%), 11th grade (65, 14.1%); High School Graduate or G.E.D.(13, 2.8%); Some College (7, 1.5%); missing information (18, 3.9%).

The JPT was administered to 921 juvenile participants as part of routine evaluation programs. Subjects were administered the JPT individually in paper-pencil test format. Reliability coefficient alphas for the two groups (total N = 921) are presented in Table 9.

These results support the reliability of the JPT. Coefficient alphas for all scales are highly significant. Reliability coefficients for the two samples are in close agreement. These results support the reliability of the JPT.

Table 9. Reliability coefficient alphas for JPT (1994, N = 921).
All coefficient alphas are significant at $p < .001$.

JPT Scale	Adjudicated Defendants N = 459	Juvenile Probation N = 462
Truthfulness Scale	.86	.88
Alcohol Severity Scale	.92	.91
Drugs Severity Scale	.90	.92
Distress Scale	.88	.90
Adjustment Scale	.86	.87
Lethality (Violence) Scale	.86	.86

12. JPT Reliability Study on Different Samples of Juveniles

In 1995 several juvenile samples (total N = 5,872) were studied to test the reliability of the JPT. There were three juvenile samples included in the study. **Group 1** consisted of 1,195 juvenile offenders, 900 males and 295 females. Demographic composition of this group is as follows: Age: 12 years of age and younger (50, 4.1%); 13 years (87, 7.3%); 14 years (192, 16.1%); 15 years (280, 23.4%); 16 years (254, 21.3%); 17 years (266, 22.3%); 18 years (59, 4.9%); 19 and older (7, 0.6%). Ethnicity: Caucasian (882, 73.8%); Black (197, 16.5%); Hispanic (63, 5.3%); Asian (10, 0.8%); American Indian (16, 1.3%); and Other (27, 2.3%). Education: 6th grade or less (63, 5.3%); 7th grade (109, 9.1%); 8th grade (210, 17.6%); 9th grade (300, 25.1%); 10th grade (230, 19.2%); 11th grade (227, 19.0%); High School Graduate/G.E.D. (39, 3.3%); and Some College (17, 1.4%).

Prior history information for Group 1 participants is as follows: Age of first arrest: 10 years (33, 2.7%); 11 years (37, 3.1%); 12 years (89, 7.4%); 13 years (164, 13.7%); 14 years (238, 19.9%); 15 years (235, 19.7%); 16 years (202, 16.9%); 17 years (119, 10.0%); 18 years (20, 1.7%); 19 and older (4, 0.4%); and missing information (54, 4.5%). Number of misdemeanor convictions: None (455, 38.1%); one (461, 38.6%); two (143, 12.0%); three (47, 3.9%); four or more (36, 3.1%); and missing (53, 4.4%).

Felony convictions are summarized as follows: No felonies (939, 78.6%); one felony (156, 13.1%); two felonies (31, 2.6%); three felonies (12, 0.2%); four felonies or more felonies (2, 0.2%). There were 55 (4.6%) answer sheets with missing felony information. Probation: Never been on probation (881, 72.9%); been on probation once (218, 18.2%); two times (83, 6.9%); three times (11, 0.9%); four or more times (2, 0.2%); and missing information (55, 4.6%). Parole: Never been on parole (1,123, 94.0%); been on parole once (15, 1.3%); two or more times on parole (2, 0.1%); and missing information (55, 4.6%). Probation revocation: None (1,092, 91.4%); once (39, 3.2%); twice or more (10, 5.5%); missing information (55, 4.6%). Number of times arrested: None (247, 20.7%); once (470, 39.3%); twice (225, 18.8%); three times (90, 7.5%); four times (56, 4.7%); five times (16, 1.3%); six or more times (38, 3.3%); and missing information (53, 4.4%).

Juvenile confinement: None (1,016, 85.0%); once (87, 7.3%); twice (15, 1.3%); three times (7, 0.6%); four times (6, 0.5%); and five or more times (9, 0.9%). There were 55 cases (4.6%) of missing information. Alcohol arrests: None (953, 79.7%); one (148, 12.4%); two (32, 2.7%); three or more (7, 0.6%); and missing information (55, 4.6%). Drug arrests: None (1,064, 79.7%); one (65, 5.4%); two (8, 0.7%); three or more (3, 0.3%); and missing (55, 4.6%).

Group 2 consisted of 3,364 juveniles, 2543 (75.6%) males and 816 (24.3%) females. Demographic composition is as follows: Age: 12 years or younger (95, 2.8%); 13 years (285, 8.5%); 14 years (525,

15.6%); 15 years (864, 25.7%); 16 years (1,065, 31.7%); 17 years (469, 13.9%); 18 years (47, 1.4%); 19 years (12, 0.4%); and missing (2, 0.1%). Ethnicity: Caucasian (1,962, 58.3%); Black (602, 17.9%); Hispanic (547, 16.3%); Asian (34, 1.0%); Native American (54, 1.6%); Other (74, 2.2%); and missing information (91, 2.7%). Education: 6th grade or less (174, 5.2%); 7th grade (338, 10.0%); 8th grade (678, 20.2%); 9th grade (854, 25.4%); 10th grade (629, 18.7%); 11th grade (372, 11.1%); High School Graduate (56, 1.7%); G.E.D. (244, 7.3%); Some College (18, 0.5%); and missing information (1, 0.1%).

Group 3 consisted of 1,313 juvenile probation participants. Demographic composition is summarized as follows. Males (1,029; 78.4%); Females (284, 21.6%). Age: 10 years old (3, 0.2%); 11 years (13, 1.0%); 12 years (43, 3.3%); 13 years (86, 6.5%) 14 years (200, 15.2%); 16 years (335, 25.5%); 17 years (274, 20.9%); 18 years (83, 6.3%); and 19 years and over (2, 0.2%). Ethnicity: Caucasian (944, 71.9%); Black (199, 15.2%); Hispanic (92, 7.0%); Asian (16, 1.2%); Native American (26, 2.0%); and Other (36, 2.7%). Education: 6th grade or less (78, 5.9%); 7th grade (121, 9.2%); 8th grade (195, 14.9%); 9th grade (316, 24.1%); 10th grade (293, 22.3%); partially completed High School (245, 18.7%); High School Graduate/G.E.D. (65, 5.0%).

Prior history information for Group 3 is as follows: Age of first of arrest: 10 years of age (43, 3.3%); 11 years (51, 3.9%); 12 years (98, 7.5%); 13 years (170, 12.9%); 14 years (244, 18.6%); 15 years (272, 20.7%); 16 years (250, 19.0%); 17 years (162, 12.3%); 18 years (17, 1.3%); 19 years and older (6, 0.5%). Misdemeanor convictions: None (573, 43.6%); one (509, 38.8%); two (147, 11.2%); three (55, 4.2%); four or more (27, 2.2%). Number of times on probation: None (918, 69.9%); once (317, 24.1%); twice (57, 4.3%); three or more times (20, 1.6%). Probation revocations: None (1,254, 95.5%); one (47, 3.6%); two (6, 0.5%); three or more (5, 0.4%).

Number of times in juvenile detention: None (956, 72.8%); once (255, 19.4%); twice (52, 4.0%); three times (28, 2.1%); four or more times (21, 1.8%). Number of juvenile hearings: None (206, 15.7%); one (630, 48.0%); two (277, 21.1%); three (92, 7.0%); four (43, 3.3%); five (16, 1.2%); six (15, 1.1%); seven or more (32, 2.6%). Alcohol arrests: None (1,108, 84.4%); one (176, 13.4%); two (19, 1.4%); three (4, 0.3%); four (4, 0.3%); and five or more (1, 0.1%). Drug arrests: None (1,244, 94.7%); one (61, 4.6%); two or more (1, 0.1%).

Reliability coefficient alphas for all three groups (total N = 5,872) are presented in Table 10.

Table 10. Reliability coefficient alphas. (1995, N = 5,872)
All coefficient alphas are significant at p<.001.

JPT Scale	Group 1 N = 1,195	Group 2 N = 3,364	Group 3 N = 1,313
Truthfulness Scale	.86	.86	.87
Alcohol Severity Scale	.89	.92	.88
Drugs Severity Scale	.90	.91	.89
Distress Scale	.89	.85	.89
Adjustment Scale	.85	.89	.85
Lethality (Violence) Scale	.85	.86	.85

These results support the reliability (internal consistency) of the JPT. The JPT is an objective and reliable assessment instrument. Reliability coefficient alphas across the three groups of juvenile offender participants are in close agreement. These results suggest that the JPT is applicable across different national juvenile offender samples. It is important to emphasize that JPT reliability statistics are very

high in the offender population it is designed to test. The JPT is a reliable juvenile risk assessment instrument.

13. Reliability of the JPT in Two Samples of Juvenile Offenders

Reliability of the JPT was investigated in the present study (1996) in two samples of juvenile offenders.

Method and Results

The subjects in this study consisted of 2,124 juveniles in two samples. **Group 1 consisted of 611 juvenile offenders.** There were 455 males and 156 females. Demographic composition of this sample is as follows: Age: 11 years of age (3, 0.5%); 12 years (14, 2.3%); 13 years (65, 10.6%); 14 years (123, 20.1%); 15 years (177, 29.0%); 16 years (193, 31.6%); 17 years (33, 5.4%); and missing information (3, 0.5%). Ethnicity: Caucasian (465, 76.1%); Black (80, 13.1%); Hispanic (25, 4.1%); Asian (22, 3.6%); Native American (10, 1.6%); Other (2, 0.3%); and missing information (7, 1.1%). Education: 6th grade or less (17, 2.8%); 7th grade (46, 7.5%); 8th grade (139, 22.7%); 9th grade (213, 34.9%); 10th grade (130, 21.3%); 11th grade (38, 6.2%); High School Graduate/G.E.D. (1, 0.2%); Some College (3, 0.5%); and missing information (24, 3.9%).

Group 2 consisted of 1,513 juvenile offenders. Demographic composition of this sample is as follows: Gender: 1,101 males (72.8%), and 412 females (27.2%). Age: 12 years or younger (56, 3.7%); 13 years (143, 9.5%); 14 years (229, 15.1%); 15 years (318, 21.0%); 16 years (349, 23.1%); 17 years (328, 21.7%); 18 years (87, 5.8%); 19 years (2, 0.1%); and missing information (1, 0.1%). Ethnicity: Caucasian (1,107, 73.2%); Black (227, 15.0%); Hispanic (120, 7.9%); Asian (6, 0.4%); Native American (21, 1.4%); and Other (32, 2.1%). Education: 6th grade or less (84, 5.6%); 7th grade (144, 9.5%); 8th grade (257, 17.0%); 9th grade (358, 23.7%); 10th grade (348, 23.0%); 11th grade (244, 16.1%); High School Graduate/G.E.D. (65, 4.3%); and Some College (13, 0.9%).

Reliability coefficient alphas are presented in Table 11 for both juvenile offenders samples (Total N = 2,124).

The results of the study support the reliability of the JPT. All coefficient alphas are significant at $p < .001$. All scale reliability coefficients maintained high levels. These results show that the JPT is a reliable juvenile offender risk assessment instrument.

Table 11. Reliability coefficient alphas (1996, N = 2,124).

All coefficient alphas are significant at $p < .001$.

<u>JPT Scale</u>	<u>Group 1, N = 611</u>	<u>Group 2, N = 1,513</u>
Truthfulness Scale	.86	.86
Alcohol Severity Scale	.87	.88
Drugs Severity Scale	.90	.89
Distress Scale	.89	.88
Adjustment Scale	.86	.85
Lethality (Violence) Scale	.85	.85

14. A Study of Sex Differences in the JPT

People often develop firm masculine and feminine identifications that contribute to consistent "sex differences" or gender differences on psychometric tests. The JPT is a risk assessment instrument that measures risk from a variety of perspectives, notably, risk of alcohol and drug abuse, violence, adjustment and distress or mental health. If sex differences exist in these areas then male and female respondents are likely to score differently on these JPT scales. The purpose of the present study (1996) was to investigate sex differences in JPT scales.

Method

There were 393 juvenile offenders included in the present study (1996). The JPT was administered to each participant individually as part of routine evaluation programs. There were 348 males (88.5%) and 45 females (11.5%). Demographic composition of the subjects is as follows: Age: 12 years or younger (8, 2.0%); 13 years (38, 9.7%); 14 years (70, 17.8%); 15 years (111, 28.2%); 16 years (148, 37.7%); and 17 years (18, 4.6%). Ethnicity: Caucasian (277, 70.5%); Black (106, 27.0%); Hispanic (2, 0.5%); and Other (8, 2.0%). Education: 6th grade or less (40, 10.2%); 7th grade (76, 19.3%); 8th grade (108, 27.5%); 9th grade (92, 23.4%); 10th grade (55, 14.0%); 11th grade (10, 2.5%); High School Graduate/G.E.D. (4, 1.0%); and Some College (3, 0.8%).

Results and Discussion

Reliability coefficient alpha results are presented in Table 12.

Table 12. Reliability statistics, coefficient alpha. (1996, N = 393)
All coefficient alphas are significant as $p < .001$.

JPT Scales	Juvenile Offenders N = 393
Truthfulness Scale	.82
Alcohol Severity Scale	.93
Drugs Severity Scale	.92
Adjustment Scale	.80
Distress Scale	.87
Lethality (Violence) Scale	.80

Coefficient Alpha is considered the most important index of internal consistency or reliability. This study demonstrates the reliability (internal consistency) of the JPT scales with juvenile offender participants. Reliability refers to consistency of test results regardless of who uses the test. JPT test results are reliable, objective, verifiable and reproducible. These results support the internal consistency (reliability) of the JPT.

T-tests were calculated for all JPT scales to assess possible sex or gender differences. T-test results are presented in Table 13.

Significant sex differences were demonstrated on two of the six scales, i.e., Truthfulness Scale and Distress Scale. The Truthfulness Scale is composed of items to which most people would agree. The present analyses (1996) found that females were more open (candid or honest) in their answers to these test items than males. In other words, males tend to fake good, deny or minimize more than females as represented on the JPT Truthfulness Scale.

Table 13. T-test comparisons of sex differences. (1996, N =393)
Juvenile Offenders Sex Differences

JPT Scale	Juvenile Offenders N = 393
Truthfulness Scale	t=2.4, p<.02
Alcohol Severity Scale	n.s.
Drugs Severity Scale	n.s.
Adjustment Scale	n.s.
Distress Scale	t=3.1, p<.002
Lethality (Violence) Scale	n.s.

Based on this (1996) study, gender specific norms (or separate male and female scoring procedures) have been established in the JPT software program for males and females on the Validity (Truthfulness) Scale and Distress Scale. Significant sex differences were not observed on the other JPT scales. This is an example of the value of ongoing JPT research. With more accurate and fair measures, assessment personnel can be more confident in their assessment-related decisions.

15. Reliability of the JPT

Reliability of the JPT was investigated in the present study (1997) in three samples of juvenile offenders. There was a total of 4,216 juveniles included in three samples. **Group 1 consisted of 3,312 juvenile offenders.** There were 2,516 males (76%) and 796 females (24%). Demographic composition of this sample is as follows: Age: 12 years of age or younger (79, 2.4%); 13 years (278, 8.4%); 14 years (520, 15.7%); 15 years (855, 25.8%); 16 years (1,053, 31.8%); 17 years (456, 13.8%); 18 years (47, 1.4%); 19 years or older (12, 0.4%); and missing information (12, 0.4%). Ethnicity: Caucasian (1,917, 57.9%); Black (602, 18.2%); Hispanic (546, 16.5%); Asian (34, 1.0%); Native American (52, 1.6%); Other (74, 2.2%); and missing information (87, 2.6%). Education: 6th grade or less (162, 4.9%); 7th grade (332, 10.0%); 8th grade (671, 20.3%); 9th grade (841, 25.4%); 10th grade (619, 18.7%); 11th grade (368, 11.1%); High School Graduate/G.E.D. (55, 1.7%); Some College (18, 0.5%); and missing information (246, 7.4%).

Group 2 consisted of 854 juvenile offenders. Demographic composition of this sample is as follows: Gender: 628 males (73.5%), and 226 females (26.5%). Age: 12 years or younger (27, 3.2%); 13 years (59, 6.9%); 14 years (124, 14.5%); 15 years (183, 21.4%); 16 years (201, 23.5%); 17 years (191, 22.4%); 18 years (65, 7.6%); and 19 years (4, 0.5%). Ethnicity: Caucasian (623, 73.0%); Black (125, 14.6%); Hispanic (70, 8.2%); Asian (9, 1.1%); Native American (12, 1.4%); and Other (15, 1.8%). Education: 6th grade or less (32, 3.7%); 7th grade (63, 7.4%); 8th grade (131, 15.3%); 9th grade (214, 25.1%); 10th grade (211, 24.7%); 11th grade (144, 16.9%); High School Graduate/G.E.D. (49, 5.7%); and Some College (10, 1.2%).

Group 3 consisted of 50 juvenile offenders. Demographic composition of this sample is as follows: Gender: 17 males (34%) and 33 females (66%). Age: 12 years or younger (2, 4%); 13 years (10, 20%); 14 years (12, 24%); 15 years (7, 14%); 16 years (10, 20%); 17 years (7, 14%); and 18 years (2, 4%). Ethnicity: Caucasian (39, 78%); Black (1, 2%); Native American (2, 4%); and Other (8, 16%). Education: 6th grade or less (2, 4%); 7th grade (12, 24%); 8th grade (6, 12%); 9th grade (11, 22%); 10th grade (6, 12%); 11th grade (11, 22%); and High School Graduate/G.E.D. (2, 4%).

Reliability coefficient alphas are presented in Table 14 for the three juvenile offender samples (Total N = 4,216).

Table 14. Reliability coefficient alphas (1997, N = 4,216).

All coefficient alphas are significant at p<.001.

JPT Scale	Group 1 N = 3,312	Group 2 N = 854	Group 3 N = 50
Truthfulness Scale	.84	.86	.89
Alcohol Severity Scale	.92	.86	.84
Drugs Severity Scale	.91	.87	.89
Distress Scale	.89	.88	.91
Adjustment Scale	.85	.84	.85
Lethality (Violence) Scale	.84	.80	.82

The results of the study support the reliability of the JPT. All coefficient alphas are significant at $p < .001$. Scale reliability coefficients for all juvenile groups maintained high levels. These results show that the JPT is a reliable juvenile offender risk assessment instrument.

16. Reliability and Scale Risk Range Accuracy of the JPT

This study (1998) was conducted to test the reliability and accuracy of the JPT for the assessment of juvenile offenders. Risk range percentile scores are calculated for each JPT scale. These risk range percentile scores are derived from scoring equations based on responses to scale items and Truth-Corrections, then converted to percentile scores. 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.

Analysis of the accuracy of JPT risk range percentile scores involves comparing the risk range percentile scores obtained from JPT test results to the predicted risk range percentages as defined above. The percentages of participants expected to fall into each risk range are the following: **Low Risk (39%)**, **Medium Risk (30%)**, **Problem Risk (20%)** and **Severe Problem or Maximum Risk (11%)**. The actual percentage of individuals falling in each of the four risk ranges, based on their risk range percentile scores, was compared to these predicted percentages.

Method and Results

The subjects in this study (1998) consisted of 713 juvenile offenders. There were 566 males (79.4%) and 147 females (20.6%). Demographic composition of these participants is as follows: Age: 12 years or younger (33, 4.6%); 13 years (66, 9.3%); 14 years (116, 16.3%); 15 years (150, 21.0%); 16 years (163, 22.9%); 17 years (165, 23.1%); and 18 years (20, 2.8%). Ethnicity: Caucasian (496, 69.6%); Black (143, 20.1%); Hispanic (52, 7.3%); Asian (3, 0.4%); Native American (14, 2.0%); and Other (5, 0.7%). Education: 6th grade or less (37, 5.2%); 7th grade (75, 10.5%); 8th grade (123, 17.3%); 9th grade (165, 23.1%); 10th grade (181, 25.4%); 11th grade (109, 15.3%); High School Graduate/G.E.D. (20, 2.8%); and Some College (3, 0.4%).

Reliability coefficient alphas are presented in Table 15 for 713 juvenile offenders.

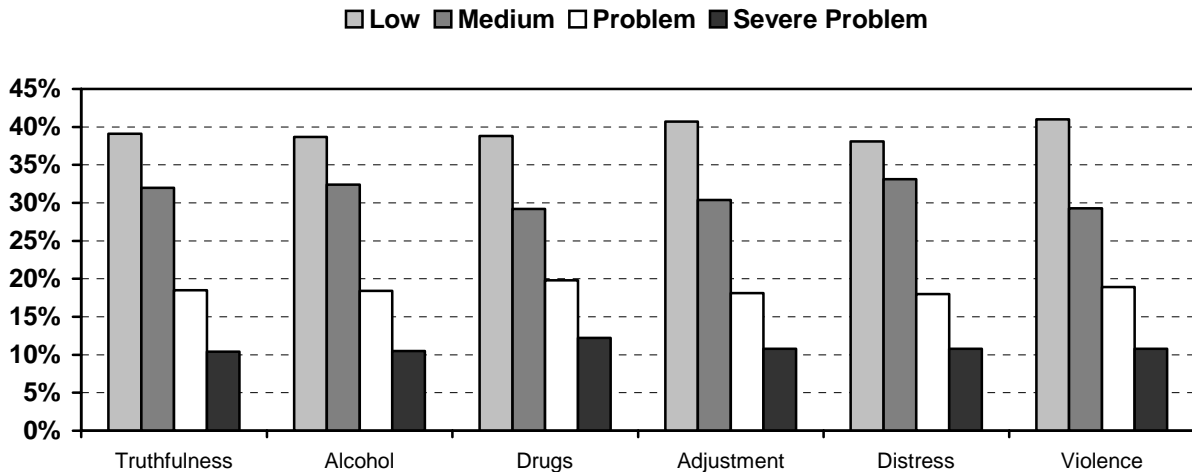
Table 15. Reliability coefficient alphas (1998, N = 713).
All coefficient alphas are significant at p<.001.

JPT Scale	Juvenile Offenders N = 713
Truthfulness Scale	.84
Alcohol Severity Scale	.88
Drugs Severity Scale	.89
Adjustment Scale	.82
Distress Scale	.88
Lethality (Violence) Scale	.80

The results of the study support the reliability of the JPT. All coefficient alphas are significant at p<.001. All scale reliability coefficients maintained high levels. These results show that the JPT is a reliable risk assessment instrument for juvenile offenders.

The risk range percentile score results for juvenile offenders using the JPT are presented in Table 16.

Table 16. Risk Range Percentile Scores, N = 713 juvenile offenders (1998).



<u>Risk Range</u>	<u>Truthfulness</u>	<u>Alcohol</u>	<u>Drugs</u>	<u>Adjustment</u>	<u>Distress</u>	<u>Violence</u>	<u>Predicted</u>
Low	39.1	38.7	38.8	40.7	38.1	41.0	39%
Medium	32.0	32.4	29.2	30.4	33.1	29.3	30%
Problem	18.5	18.4	19.8	18.1	18.0	18.9	20%
Maximum	10.4	10.5	12.2	10.8	10.8	10.8	11%

These results show that obtained risk range percentile scores closely approximated the predicted risk range percentile scores for each of the six JPT scales presented in Table 16 for the juvenile offenders included in the study. **These results indicate that the JPT is a very accurate juvenile offender risk assessment instrument.**

The results of the comparisons between obtained risk percentages and predicted percentages show that all obtained scale risk range percentile scores were within 3.1 percent of predicted. For the Problem Risk and Maximum Risk categories, all comparisons showed that the obtained percentages were within two percentage points of predicted. **This is very accurate assessment.**

17. Validity, Reliability and Scale Risk Range Accuracy Study of the JPT

In 1998 the JPT was reviewed and even further sophisticated. It was decided that the Stress Quotient Scale would add an important dimension to the test. With inclusion of the Stress Quotient Scale, the other scales were shortened so that the test would still have about the same number of test items, yet with little information lost. However, the test was improved. Double negatives were removed, items were made more readable and the best-of-the-best items were retained in each scale. The JPT can be completed in a timely (on average 30 minutes) manner.

This study (1998) was conducted to test the validity, reliability and accuracy of the improved JPT assessment instrument. Reading levels of the test items were also analyzed to improve readability and comprehension for juveniles. Reliability research on the JPT was used to decide which test items were to be dropped. The items with the best statistical properties were retained. Inter-item reliability coefficients were used in combination with content of test items to aid in development of the new scales. Reliability of the JPT was investigated in the present study.

Two statistical procedures were used in this study to test the validity of the JPT in assessment of juvenile offenders. The first procedure involved t-test comparisons between first offenders and multiple offenders (discriminant validity) and the second procedure involved statistical decision-making (predictive validity). For the t-test comparisons, a first offender was defined as an offender who did not have a prior arrest and a multiple offender was defined as an offender who had one or more prior arrests. Several discriminant validity tests were conducted. Discriminant validity of the Alcohol Severity Scale and Drugs Severity Scale using number of alcohol arrests and drug arrests were not done because there were insufficient number of clients who had arrests. The answer sheet item "total number of times arrested" was used to categorize offenders as either first offenders or multiple offenders for the scale analyses. Because risk is often defined in terms of severity of problem behavior it is expected that multiple offenders would score significantly higher on the different scales than first offenders. This was an empirical question that was tested in the present study.

In assessment, a measurement can be considered a prediction. For example, the Alcohol Severity Scale is a measure of alcohol abuse or severity of abuse. Alcohol Severity Scale scores would predict if an individual has an alcohol problem. A benchmark that can be used for the existence of an alcohol problem is treatment. If an individual has been in alcohol treatment then the individual is known to have had an alcohol problem. Therefore, the Alcohol Severity Scale should predict if an individual has been in treatment.

Statistical decision-making is closely related to predictive validity of a test. The quality of statistical decision-making and test validity are both assessed by the accuracy with which the test (Alcohol Severity Scale) classifies "known" cases (treatment). In the present study predictive validity was evaluated in the JPT by using contingency tables defined by scale scores and treatment. Treatment was used with the Alcohol Severity Scale and Drugs Severity Scale.

Risk range percentile scores are calculated for each JPT scale. These risk range percentile scores are derived from scoring equations based on responses to scale items, Truth-Corrections and prior criminal history information, then converted to percentile scores. 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.

Analysis of the accuracy of JPT risk range percentile scores involves comparing the risk range percentile scores obtained from offender JPT test results to the predicted risk range percentages as defined above. The percentages of offenders expected to fall into each risk range is the following: Low Risk (**39%**), Medium Risk (**30%**), Problem Risk (**20%**) and Severe Problem or Maximum Risk (**11%**). 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.

Method and Results

The participants in this study (1998) consisted of 189 juvenile offenders. There were 144 males (76.2%) and 45 females (23.8%). Demographic composition of these participants is as follows: Age: 12 years or younger (40, 22.3%); 13 years (42, 23.5%); 14 years (27, 15.1%); 15 years (37, 20.7%); and 16 years (33, 18.4%). Ethnicity: Caucasian (111, 60.3%); Black (36, 19.6%); Hispanic (26, 14.1%); Asian (7, 3.8%); and Other (4, 2.2%). Education: 6th grade or less (9, 4.9%); 7th grade (30, 16.4%); 8th grade (37, 20.2%); 9th grade (43, 23.5%); 10th grade (42, 23.0%); 11th grade (19, 10.4%); and High School Graduate/G.E.D. (3, 1.6%).

Reliability coefficient alphas are presented in Table 17 for 189 juvenile offenders.

Table 17. Reliability coefficient alphas (1998, N = 189).
All coefficient alphas are significant at p<.001.

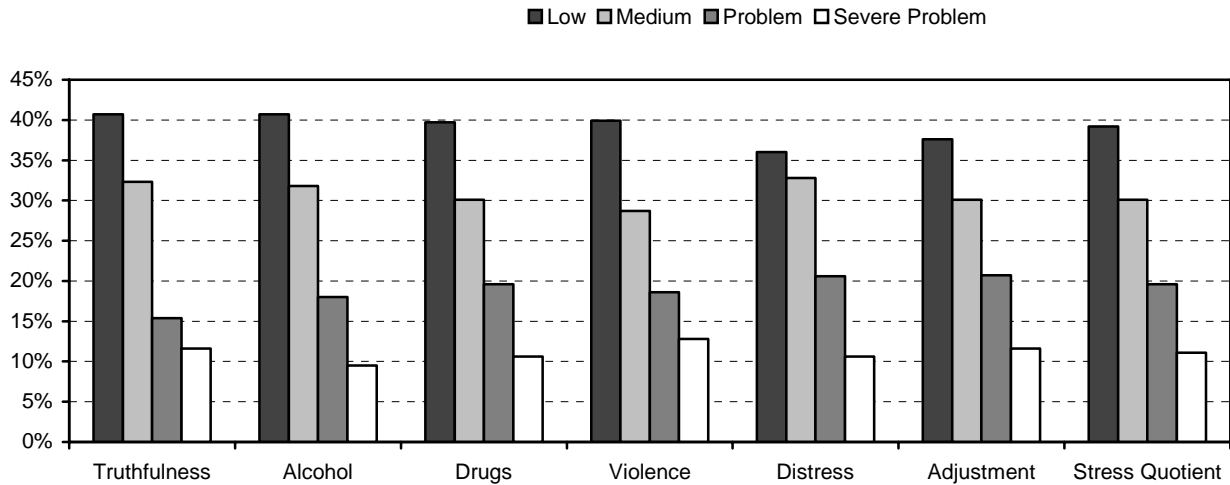
<u>JPT Scale</u>	<u>Juvenile Offenders N = 189</u>
Truthfulness Scale	.87
Alcohol Severity Scale	.85
Drugs Severity Scale	.91
Adjustment Scale	.85
Distress Scale	.92
Lethality (Violence) Scale	.87
Stress Quotient Scale	.91

The results of the study support the reliability of the JPT. All coefficient alphas are significant at p<.001. All scale reliability coefficients including the new Stress Quotient Scale maintained high levels. The coefficient alphas for all of the JPT scales were maintained or improved from previously reported studies. The results of the revised JPT show that the test has been improved. These results show that the JPT is a reliable risk assessment instrument for juvenile offenders.

The analysis of risk assessment is based upon scores attained by the 189 juvenile offender participants in this study who completed the JPT. The risk range percentile score results for the juvenile offenders using the JPT are presented in Table 18.

The percentages of juveniles falling into each risk range are presented for each of the seven JPT scales. There are 189 juvenile offenders included. As shown in the figure, the percentages of clients falling into each risk range approximates very closely the predicted percentages. All of the obtained risk ranges for all risk categories and all scales were within 4.6 percentage points of the predicted percentages. **Of the 28 possibilities (7 scales x 4 risk ranges), there were 15 instances where the obtained risk range deviated from the predicted by less than one percentage point. These results demonstrate the accuracy of the JPT.**

Table 18. Risk Range Percentile Scores, N = 189 juvenile offenders (1998).



	Truthfulness	Alcohol	Drugs	Violence	Distress	Adjustment	Stress Quotient	Predicted
Risk Range	%	%	%	%	%	%	%	%
Low	40.7	40.7	39.7	39.9	36.0	37.6	39.2	39%
Medium	32.3	31.8	30.1	28.7	32.8	30.1	30.1	30%
Problem	15.4	18.0	19.6	18.6	20.6	20.7	19.6	20%
Severe Problem	11.6	9.5	10.6	12.8	10.6	11.6	11.1	11%

The t-test comparisons between first offenders and multiple offenders for each scale is presented in the tables below. Multiple offenders were defined as those clients having two or more arrests as reported on the JPT answer sheet.

T-test comparisons between first offenders and multiple offenders. (1998, N = 189)

Offender status defined by total number of arrests.

JPT Scale	First Offenders Mean (N=83)	Multiple Offenders Mean (N=106)	T-value	Level of significance
Truthfulness Scale	10.24	8.56	t = 2.26	p=.025
Alcohol Severity Scale	1.76	2.96	t = 2.51	p=.013
Drugs Severity Scale	5.07	7.30	t = 1.97	p=.05
Lethality (Violence) Scale	11.50	20.52	t = 7.47	p<.001
Distress Scale	12.30	16.36	t = 2.63	p=.009
Adjustment Scale	12.81	17.02	t = 3.67	p<.001
Stress Quotient Scale	114.57	95.87	t = 3.08	p=.002

These t-test results support the discriminant validity of the JPT. All t-test comparisons between first offenders and multiple offenders were significant at $p<.05$. All but the Truthfulness Scale showed that multiple offenders had higher scale scores than first offenders. The Truthfulness Scale scores suggest that first offenders are more likely to “fake good” or minimize than multiple offenders.

T-test results of the Lethality (Violence) Scale indicated that multiple offenders scored much higher than first offenders. The very large significant difference between first and multiple offenders strongly support the discriminant validity of the Lethality (Violence) Scale.

The test of predictive validity for the Alcohol Severity Scale is presented in the table below. Juveniles who

scored between the 40th and 69th percentile are not included in the table because the table distinguishes between problem and no problem behavior. No problem is defined as an Alcohol Severity Scale score at or below the 39th percentile, whereas alcohol-related problematic behavior is defined as an Alcohol Severity Scale score in the 70th or above percentile range. Alcohol treatment information was obtained from juvenile responses to JPT test items.

These results indicate that for the 10 juveniles who reported having had alcohol treatment, all 10 juveniles, or 100 percent, had Alcohol Severity Scale scores at or above the 70th percentile. These results show there is a very strong positive correlation between Alcohol Severity Scale scores and alcohol treatment.

The predictive validity test of the Drugs Severity Scale was done in the same way using drug treatment as the criterion. Of the 28 juveniles who reported having had drug treatment 28 or 100 percent had Drugs Severity Scale scores in the 70th percentile or higher (Problem Risk and above). These results show there is a very strong positive correlation between the Drugs Severity Scale and drug treatment.

Taken together these results strongly support the reliability, validity and accuracy of the JPT for assessment of juvenile offenders. Reliability coefficient alphas were significant at $p < .001$ for all JPT scales. T-test comparisons between first offenders and multiple offenders support discriminant validity of all but the Truthfulness Scale. Discriminant validity was supported on the Alcohol Severity Scale, Drugs Severity Scale, Adjustment Scale, Distress Scale, Lethality (Violence) Scale and Stress Quotient Scale because multiple offenders scored significantly higher on the different scales than first offenders. Predictive validity of the Alcohol Severity Scale and Drugs Severity Scale was shown by the accuracy with which the scales identified problem risk behavior (having had treatment). These results support the reliability, validity and accuracy of the JPT.

18. Study of the JPT in a Juvenile Probation Sample

This study (2000) included 1,718 juveniles from a Midwest juvenile probation department. Statistical reliability, validity and accuracy of the JPT were studied. This sample of juvenile offenders represents the target population for the JPT. The test was designed to be used in corrections settings and test score recommendations which are presented in the JPT report are tailored to corrections departments.

Methods and Results

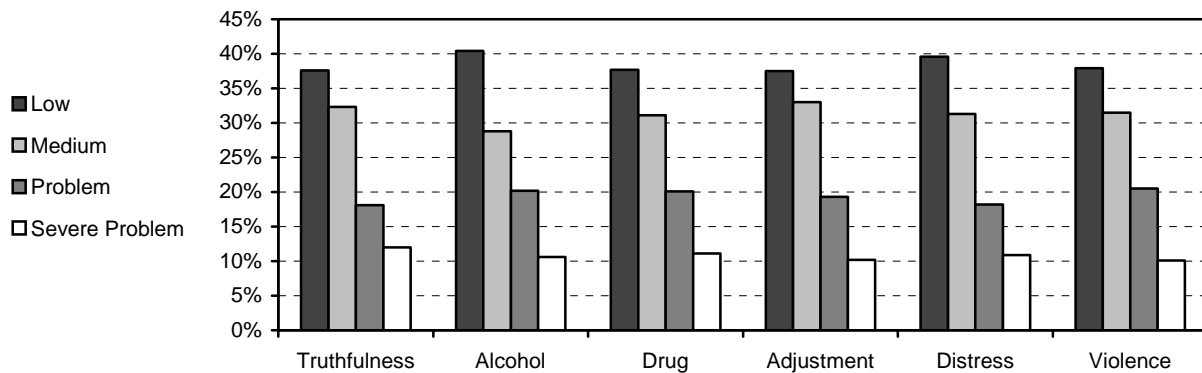
The participants in this study (2000) consisted of 1,718 juvenile offenders. There were 1,285 males (74.8%) and 433 females (25.2%). Demographic composition of these participants is as follows: Age: 12 years or younger (57, 3.3%); 13 years (148, 8.6%); 14 years (222, 12.9%); 15 years (318, 18.5%); 16 years (395, 23.0%); 17 years (466, 27.1%); 18 years (101, 5.9%); and 19 years or older (11, 0.6%). Ethnicity: Caucasian (1,359, 79.1%); Black (171, 10.0%); Hispanic (128, 7.5%); Asian (16, 0.9%); Native American (32, 1.9%); and Other (12, 0.7%). Education: 6th grade or less (81, 4.7%); 7th grade (148, 8.6%); 8th grade (277, 16.1%); 9th grade (369, 21.5%); 10th grade (391, 22.8%); 11th grade (311, 18.1%); High School Graduate/G.E.D. (129, 7.5%); and Some College (12, 0.7%).

Accuracy

JPT accuracy for this juvenile offender sample is presented in the Table 19. The scale risk range percentages shown are based upon attained scale scores (raw point totals for each scale). The percentages of individuals placed in each risk range classification category for each JPT scale demonstrates that these obtained percentages are in close agreement with the predicted percentages

shown in parentheses in the table below the graph. The JPT accurately identifies juvenile offender risk. There were 1,718 juveniles included in this analysis.

Table 19. JPT Client Risk Assessment (2000, N = 1,718)



Scale	Low Risk (39%)	Medium Risk (30%)	Problem Risk (20%)	Severe Problem (11%)
Truthfulness	37.4 (1.6)	32.6 (2.6)	18.0 (2.0)	12.0 (1.0)
Alcohol	39.8 (0.8)	30.4 (0.4)	20.1 (0.1)	9.7 (1.3)
Drugs	40.9 (1.9)	27.4 (2.6)	20.9 (0.9)	10.1 (0.9)
Adjustment	39.9 (0.9)	30.3 (0.3)	19.7 (0.3)	10.1 (0.9)
Distress	40.4 (1.4)	32.0 (2.0)	17.1 (2.9)	10.5 (0.5)
Violence	38.3 (0.7)	32.2 (2.2)	18.5 (1.5)	11.0 (0.0)

The graph and table above demonstrate that the obtained risk range percentages for this 2000 sample (N=1,718) of juvenile offenders are very accurate. The six JPT scales closely approximate the predicted percentages. All of the obtained risk ranges for all risk categories and all scales were within 2.9 percentage points of the predicted percentages. Of the 24 possible comparisons (6 scales x 4 risk ranges), 13 obtained percentages were within one percentage point of predicted percentages. Only four obtained risk range percentages deviated from the predicted percentages by more than 2 percentage points and these were within 2.9 percent of the predicted. These results demonstrate that the JPT accurately measures juvenile offender risk.

Reliability

The reliability coefficients of each of the six JPT scales are presented in Table 20. As shown in Table 20, all JPT scales have very high reliability coefficients. All scales have professionally accepted (.70 or higher) reliability. The JPT is a reliable juvenile offender test.

Validity

Comparisons between first time offenders and multiple offenders are expected to show that multiple offenders score higher on JPT scales than first offenders. Because multiple offenders have been arrested more times they are considered to be more at risk than first offenders. In the following **discriminant validity** analyses, comparisons using “Number of times arrested” were made between first offenders (N=1,002) and multiple offenders (N=716). The Alcohol Severity Scale comparison was done using “Number of alcohol arrests” to define first offenders (N=1622). and multiple offenders (N=92). The Drugs Severity Scale comparison was done using “Number of drug arrests” to define first offenders (N=1672) and multiple offenders (N=46). There were 1,718 juvenile offenders included in these analyses.

Table 20. Reliability of the JPT. (2000, N = 1,718)
All coefficient alphas are significant at p<.001.

<u>JPT SCALES</u>	<u>All Offenders (N=1,718)</u>
Truthfulness Scale	.84
Alcohol Severity Scale	.88
Adjustment Scale	.82
Drugs Severity Scale	.88
Distress Scale	.86
Lethality (Violence) Scale	.81

Table 21. Comparisons between first offenders (N=1,002) and multiple offenders (N=716).

<u>JPT Scale</u>	<u>First Offenders Mean Score</u>	<u>Multiple Offenders Mean Score</u>	<u>T-value</u>	<u>Level of significance</u>
Truthfulness Scale	11.11	11.31	t = 0.77	n.s.
Alcohol Scale *	5.24	13.96	t = 7.86	p<.001
Adjustment Scale	11.84	13.15	t = 5.27	p<.001
Drugs Scale *	8.20	18.76	t = 6.97	p<.001
Distress Scale	7.35	6.87	t = 1.68	p=.093
Violence Scale	13.14	21.16	t = 20.68	p<.001

* offender status defined by number of alcohol arrests or drug arrests.

These comparisons show that multiple offenders scored significantly higher on the Alcohol Severity, Adjustment, Drugs Severity and Lethality (Violence) Scales than first offenders. Having more arrests is associated with having higher levels of risk and more severe problems. **These t-test results support the discriminant validity of the Alcohol Severity, Adjustment, Drugs Severity and Lethality (Violence) Scales.** The Alcohol Severity, Drugs Severity and Lethality (Violence) Scales show very large differences between first and multiple offenders. Multiple offenders clearly are at higher risk than first offenders.

The Truthfulness Scale shows that first offenders and multiple offenders scored about the same. These results suggest that offender status is not a factor in terms of juvenile honesty while taking the test. First and multiple offenders are equally open and honest. Openness, candidness or truthfulness for troubled youth seems to be in contrast to the guardedness and defensiveness and denial manifest in adult offenders. Results of the Distress Scale comparisons demonstrate that distress did not differ between first and multiple offenders. The level of distress experienced by first and multiple offenders in this probation setting did not differ. Distress Scale scores were not significantly different.

The **predictive validity** analyses of the Alcohol Severity and Drugs Severity Scales demonstrated that the JPT accurately identifies juvenile offenders with alcohol and drug problems. Having alcohol treatment was used to define an alcohol problem and drug treatment defined a drug problem. Alcohol and drug treatment information was obtained from offenders' answers to JPT test items (#12, #42, #38 & #75) concerning alcohol or drug treatment. Offenders who scored in the problem risk ranges (70th percentile & above) are compared with offenders who scored in the low risk range (39th percentile & below).

Of the 159 juvenile offenders who reported having been in alcohol treatment, 143 offenders or 90 percent had Alcohol Severity Scale scores at or above the 70th percentile. The JPT Alcohol Severity Scale accurately identified juveniles with alcohol problems. 90 percent of the clients who had alcohol treatment scored in the Problem or Severe Problem risk range on the Alcohol Severity Scale. These results validate the JPT Alcohol Severity Scale.

The Drugs Severity Scale accurately identifies juveniles with drug problems. Of the 206 juvenile offenders who reported having been in drug treatment 198 individuals or 96 percent had Drugs Severity Scale scores in the 70th percentile or higher (Problem Risk and above). These results validate the JPT Drugs Severity Scale.

Taken together these results demonstrate that the JPT is a accurate, reliable and valid juvenile offender assessment test.

19. Study of the JPT in a Large Sample of Juvenile Offenders

This study (2000) continued the JPT (JPT) database research. A large sample of juvenile offenders was included in this study. Statistical reliability, validity and accuracy of the JPT were studied. This sample of juvenile offenders was compiled from many agencies from around the country.

The scoring procedures for the JPT are re-standardized on an annual basis. This study was used to standardize the JPT scoring procedures. Statewide programs have their own JPT standardized scoring procedures. Those agencies not part of a statewide program utilize the standard version of the JPT, which is presented in the present study. This study presents the statistical results of the standard JPT.

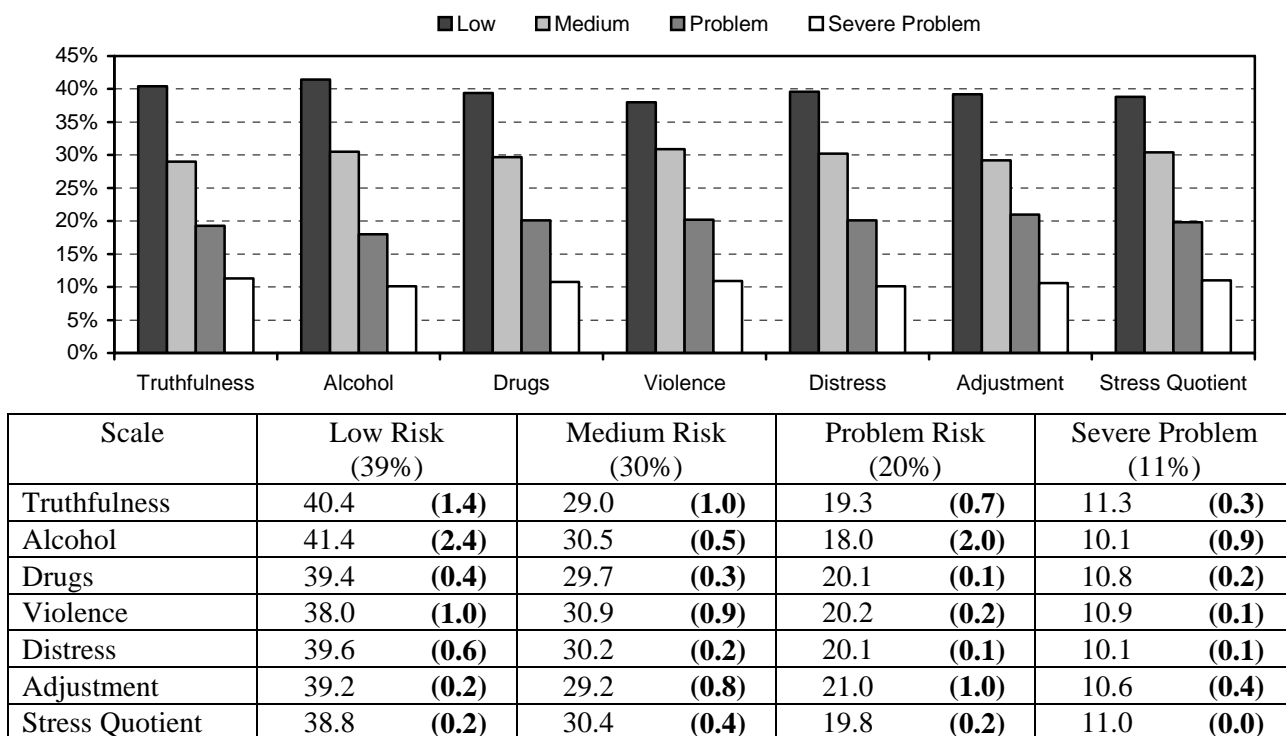
Methods and Results

The participants in this study (2000) consisted of 8,405 juvenile offenders. There were 5,618 males (66.8%) and 2,787 females (33.2%). Demographic composition of these participants is as follows: Age: 12 years or younger (259, 3.1%); 13 years (676, 8.0%); 14 years (1,350, 16.1%); 15 years (2,180, 25.9%); 16 years (2,511, 29.9%); 17 years (1,103, 13.1%); 18 years (159, 1.9%); and 19 years or older (106, 1.3%). There were 61 cases with missing age information. Ethnicity: Caucasian (4,333, 52.5%); Black (3,018, 36.6%); Hispanic (614, 7.3%); Asian (90, 1.1%); Native American (32, 0.4%); and Other (159, 1.9%) There were 159 cases with missing race information. Education: 6th grade or less (535, 6.6%); 7th grade (930, 11.5%); 8th grade (2,181, 26.9%); 9th grade (2,214, 27.3%); 10th grade (1,374, 16.9%); 11th grade (674, 8.3%); High School Graduate/G.E.D. (167, 2.1%); and Some College (39, 0.5%). There were 291 cases with missing education information.

Accuracy

JPT scale risk range percentages are presented in Table 22. The percentages of juveniles placed in each risk range classification category for each JPT scale demonstrates that these obtained percentages are in close agreement with the predicted percentages shown in parentheses in the table below the graph. The JPT accurately identifies juvenile offender risk. There were 8,405 juveniles included in this analysis.

Table 22. JPT Risk Range Accuracy (2000, N = 8,405)



The graph and table above demonstrate that the obtained risk range percentages for this 2000 sample (N=8,405) of juvenile offenders are very accurate. The seven JPT scales closely approximate the predicted percentages. All of the obtained risk ranges for all risk categories and all scales were within 2.4 percentage points of the predicted percentages. Of the 28 possible comparisons (7 scales x 4 risk ranges), 25 obtained percentages were within one percentage point of predict percentages. Only one obtained risk range percentage deviated from the predicted percentage by more than 2 percentage points and this was 2.4 percent from the predicted. These results demonstrate that the JPT accurately measures juvenile offender risk.

Reliability coefficient alphas are presented in Table 23 for 8,405 juvenile offenders.

Table 23. Reliability coefficient alphas (2000, N = 8,405).

All coefficient alphas are significant at p<.001.

JPT Scale	Juvenile Offenders N = 8,405
Truthfulness Scale	.87
Alcohol Scale	.91
Drugs Scale	.91
Adjustment Scale	.85
Distress Scale	.91
Lethality (Violence) Scale	.87
Stress Quotient Scale	.91

The results of this study support the reliability of the JPT. All coefficient alphas are significant at p<.001. All scale reliability coefficients maintained high levels. These results show that the JPT is a reliable risk assessment instrument for juvenile offenders.

Gender Differences

T-tests were calculated for all JPT scales to assess possible sex or gender differences. T-test results are presented in Table 24.

Table 24. T-test comparisons of sex differences. (2000, N = 8,405)
Juvenile Offenders Sex Differences

<u>JPT Scale</u>	<u>Males</u> <u>Mean Score</u>	<u>Females</u> <u>Mean Score</u>	<u>T-value</u>	<u>Level of</u> <u>significance</u>
Truthfulness Scale	9.97	8.33	t = 13.09	p<.001
Alcohol Severity Scale	4.81	3.96	t = 5.01	p<.001
Drugs Severity Scale	10.47	8.03	t = 10.37	p<.001
Lethality (Violence) Scale	17.21	16.38	t = 3.30	p<.001
Distress Scale	18.58	24.02	t = 17.17	p<.001
Adjustment Scale	15.79	18.86	t = 14.84	p<.001
Stress Quotient Scale	94.81	85.76	t = 9.79	p<.001

Significant sex differences were demonstrated on all seven JPT scales. The Truthfulness Scale is composed of items to which most people would agree. The present analyses (2000) found that females had lower scores than males. Females were more open (candid or honest) in their answers to these test items than males. In other words, males tend to fake good, deny or minimize more than females as represented on the JPT Truthfulness Scale.

These results demonstrate that gender differences exist and that separate male/female scoring procedures are needed to offset these differences. The JPT scales have separate male/female scoring procedures. This is another example of the importance of database research and it contributes to accurate assessment.

Validity of the JPT

JPT scale score comparisons between first offenders and multiple offenders determine the extent to which JPT scales differentiate between these offenders. It would be expected that multiple offenders (youths who have 2 or more arrests) would score higher than first offenders. The JPT answer sheet item "Number of times arrested" was used to define first offenders and multiple offenders (2 or more arrests). There were 3,711 first offenders and 4,694 multiple offenders. The Alcohol Severity and Drugs Severity Scales were also analyzed using alcohol and drug arrests. "Number of alcohol arrests" was used for the Alcohol Severity Scale, which had 8,090 first offenders and 315 multiple offenders. "Number of drug arrests" was used for the Drugs Severity Scale, which had 7,773 first offenders and 632 multiple offenders. The t-test comparisons between first offenders and multiple offenders for each JPT scale are presented in Table 25 (N=8,405). Multiple offenders had two or more arrests as reported on the JPT answer sheet.

All JPT scales demonstrate that multiple offenders score significantly higher than first offenders with the exception of the Truthfulness Scale. The Truthfulness Scale showed that first and multiple offenders did not score significantly differently. The JPT accurately differentiates between first offenders and multiple offenders. These results support the validity of the JPT.

Table 25. T-test comparisons between first offenders and multiple offenders (2000, N=8,405).

JPT Scale	First Offenders Mean	Multiple Offenders Mean	T-value	Level of significance
Truthfulness Scale	9.41	9.45	t = 0.34	n.s.
Alcohol Scale*	4.04	17.12	t = 19.73	p<.001
Drugs Scale*	8.58	22.99	t = 32.80	p<.001
Violence Scale	11.78	21.01	t = 43.56	p<.001
Distress Scale	16.47	23.48	t = 24.82	p<.001
Adjustment Scale	14.18	18.89	t = 25.28	p<.001
Stress Quotient Scale	97.21	87.55	t = 10.70	p<.001

*Note: Offender status defined by alcohol and drug arrests. Also the Stress Quotient Scales are reversed in that the higher the score the lower the risk.

JPT scales measure severity or proneness toward problem behavior. Multiple offenders have a history of arrests and, therefore, can be considered problem prone. Multiple offenders would be expected to have higher JPT scale scores than first offenders and the results reported in Table 25 support this conclusion. Offenders who have a history of arrests score higher on JPT scales than first time offenders. JPT scale scores identify problem prone offenders.

Predictive validity

In separate analyses the JPT demonstrates it accurately identifies problem prone drinkers and drug abusers. Youths who had alcohol or drug treatment were accurately identified by their Alcohol Severity Scale and Drugs Severity Scale scores. Having been in alcohol treatment identifies youths as having had an alcohol or drug problem identifies them as having a drug problem. Similarly, JPT Alcohol Severity and Drugs Severity Scale scores at or above the 70th percentile identify youths who have alcohol and drugs problems, whereas, scores at or below the 39th percentile indicate youths do not have an alcohol or drug problem. In this analysis it is predicted that youths with an alcohol and/or drug treatment history will score in the problem risk range (70th percentile and above) on the Alcohol Severity Scale and/or Drugs Severity Scale. Alcohol treatment information is obtained from client answers to JPT test item #96 regarding alcohol treatment and #85 regarding drug treatment.

Predictive validity analyses show that the JPT Alcohol Severity Scale is very accurate in identifying youths who have alcohol problems. There were 7,112 youths who had Alcohol Severity Scale scores in the low risk range (0-39th percentile) and problem risk ranges (70-100th percentile). There were 519 youths who reported having been in alcohol treatment and these youths are classified as problem drinkers. Of these 519 youths, 501 individuals, or 96.5 percent, had Alcohol Severity Scale scores at or above the 70th percentile. The Alcohol Severity Scale correctly identified over 96 percent of the youths categorized as problem drinkers.

The JPT Drugs Severity Scale is also very accurate in identifying youths who have drug problems. There were 5,792 youths scoring in the low risk and problem risk ranges. There were 1,036 youths who reported having been in drug treatment, of these, 1,004 youths, or 96.9 percent, had Drugs Severity Scale scores at or above the 70th percentile. These results validate the JPT Drugs Severity Scale.

Conclusion

Taken together these results demonstrate that the JPT is a very accurate, reliable and valid assessment instrument for screening youth offender risk. The JPT identifies youths with substance (alcohol and other drugs) abuse problems, malingerers (Truthfulness Scale), violence (lethality) potential (Lethality

(Violence) Scale) and the emotionally disturbed (Distress and Stress Quotient Scales). The JPT provides a wealth of information not found in any other assessment instrument.

20. JPT Study in a Juvenile Sample

This study (2000) included 1,205 juveniles from a Southern state juvenile services department. This research included statistical reliability, validity and accuracy of the JPT. This sample of juvenile offenders is similar to previously studied samples of corrections department juveniles. The juveniles in this sample were predominantly Black.

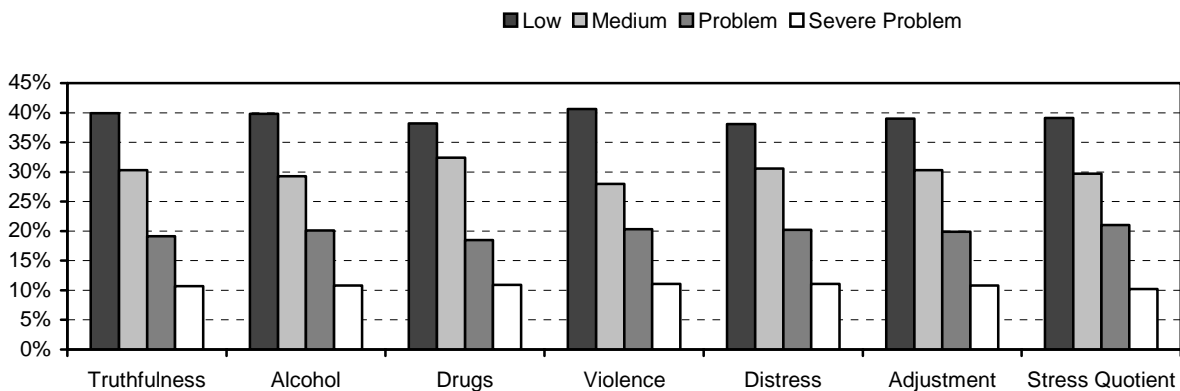
Methods and Results

The participants in this study (2000) consisted of 1,205 juvenile offenders. There were 859 males (71.3%) and 346 females (28.7%). Demographic composition of these participants is as follows: Age: 12 years or younger (50, 4.1%); 13 years (130, 10.9%); 14 years (235, 19.5%); 15 years (271, 22.5%); 16 years (340, 28.2%); 17 years (167, 13.9%); 18 years (10, 0.8%); and 19 years or older (2, 0.2%). Ethnicity: Caucasian (218, 18.1%); Black (973, 80.7%); Hispanic (3, 0.2%); Asian (7, 0.6%); Native American (2, 0.2%); and Other (2, 0.2%). Education: 6th grade or less (178, 14.9%); 7th grade (217, 18.1%); 8th grade (289, 24.2%); 9th grade (226, 18.9%); 10th grade (181, 15.1%); 11th grade (87, 7.3%); High School Graduate/G.E.D. (18, 1.5%); and Some College (0, 0.0%).

Accuracy

JPT accuracy for this juvenile offender sample is presented in the Table 26. The percentages of individuals placed in each risk range classification category for each JPT scale based upon attained scale scores (raw point totals for each scale) demonstrates that these obtained percentages are in close agreement with the predicted percentages shown in parentheses in the table below the graph. The JPT accurately identifies juvenile offender risk. There were 1,205 juveniles included in this analysis.

Table 26. JPT Scale Risk Ranges (2000, N = 1,205)



Scale	Low Risk (39%)	Medium Risk (30%)	Problem Risk (20%)	Severe Problem (11%)
Truthfulness	40.8 (1.8)	27.9 (2.1)	20.2 (0.2)	11.1 (0.1)
Alcohol	41.5 (1.5)	29.5 (0.5)	19.7 (0.3)	9.3 (1.7)
Drugs	39.4 (0.4)	29.3 (0.7)	20.5 (0.5)	10.8 (0.2)
Violence	38.1 (0.9)	30.4 (0.4)	20.1 (0.1)	11.4 (0.4)
Distress	39.8 (0.8)	29.0 (1.0)	20.2 (0.2)	11.0 (0.0)
Adjustment	40.9 (1.9)	27.7 (2.3)	19.9 (0.1)	11.5 (0.5)
Stress Quotient	39.3 (0.3)	30.2 (0.2)	20.1 (0.1)	10.4 (0.6)

Obtained risk range percentages for all risk categories and all seven scales were within 2.3 percentage

points of predicted risk range percentages. Of the 28 possible comparisons (7 scales x 4 risk ranges) between attained and predicted percentages, 22 were within one percentage point from the predicted percentage. Only two obtained risk range percentages were greater than 2% from the predicted percentage, and these were within 2.3 percent. These results demonstrate the accuracy of the JPT.

Reliability

The reliability coefficients of each of the six JPT scales are presented in Table 27.

**Table 27. Reliability of the JPT. (2000, N = 1,205)
All coefficient alphas are significant at p<.001.**

<u>JPT SCALES</u>	<u>Alpha Coefficients</u>
Truthfulness Scale	.88
Alcohol Scale	.86
Adjustment Scale	.83
Drugs Scale	.90
Distress Scale	.90
Violence Scale	.87
Stress Quotient Scale	.89

All JPT scales have very high reliability coefficients. All scales reliability coefficients are at or near .90. These results support the statistical reliability of the JPT.

Validity

Comparisons between first time offenders and multiple offenders are expected to show that multiple offenders score higher on JPT scales than first offenders. Because multiple offenders have been arrested more times they are considered to be more at risk than first offenders. In the following **discriminant validity** analyses, comparisons using “Number of times arrested” were made between first offenders (N=503) and multiple offenders (N=702). There were 1,205 juvenile offenders included in these analyses.

Table 28. Comparisons between first offenders (N=503) and multiple offenders (N=702).

<u>JPT Scale</u>	<u>First Offenders Mean Score</u>	<u>Multiple Offenders Mean Score</u>	<u>T-value</u>	<u>Level of significance</u>
Truthfulness Scale	9.60	9.37	t = 0.62	n.s.
Alcohol Scale	1.54	2.56	t = 3.92	p<.001
Adjustment Scale	13.18	16.10	t = 6.45	p<.001
Drugs Scale	3.74	6.89	t = 7.06	p<.001
Distress Scale	15.04	18.31	t = 4.98	p<.001
Violence Scale	13.24	20.18	t = 13.31	p<.001
Stress Quotient Scale	101.98	91.22	t = 4.39	p<.001

Note: Stress Quotient Scale scores are reverse in that higher scores mean better stress coping abilities.

These comparisons show that multiple offenders scored significantly higher on the Alcohol Severity, Adjustment, Drugs Severity and Lethality (Violence) Scales than first offenders. Having more arrests is associated with having higher levels of risk and more severe problems. **These t-test results support the discriminant validity of the Alcohol Severity, Adjustment, Drugs Severity and Lethality (Violence) Scales.** The Alcohol Severity, Drugs Severity and Lethality (Violence) Scales show very large differences between first and multiple offenders. Multiple offenders clearly are at higher risk than first offenders.

The Truthfulness Scale shows that first offenders and multiple offenders scored about the same. These results suggest that offender status is not a factor in terms of juvenile honesty while taking the test. First and multiple offenders are equally open and honest. Openness, candidness or truthfulness for troubled youth seems to be in contrast to the guardedness and defensiveness and denial manifest in adult offenders. Results of the Distress Scale comparisons demonstrate that distress did not differ between first and multiple offenders. The level of distress experienced by first and multiple offenders in this probation setting did not differ. Distress Scale scores were not significantly different.

The **predictive validity** analyses of the Alcohol Severity and Drugs Severity Scales demonstrated that the JPT accurately identifies juvenile offenders with alcohol and drug problems. Having alcohol treatment was used to define an alcohol problem and drug treatment defined a drug problem. Alcohol and drug treatment information was obtained from offenders' answers to JPT test items (#12, #42, #38 & #75) concerning alcohol or drug treatment. Offenders who scored in the problem risk ranges (70th percentile & above) are compared with offenders who scored in the low risk range (39th percentile & below).

Of the 26 juvenile offenders who reported having been in alcohol treatment, all 26 offenders or 100 percent had Alcohol Severity Scale scores at or above the 70th percentile. The JPT Alcohol Severity Scale accurately identified juveniles with alcohol problems. 100 percent of the clients who had alcohol treatment scored in the Problem or Severe Problem risk range on the Alcohol Severity Scale. These results validate the JPT Alcohol Severity Scale.

The Drugs Severity Scale accurately identifies juveniles with drug problems. Of the 114 juvenile offenders who reported having been in drug treatment all 114 individuals or 100 percent had Drugs Severity Scale scores in the 70th percentile or higher (Problem Risk and above). These results validate the JPT Drugs Severity Scale.

These results demonstrate that the JPT is an accurate, reliable and valid juvenile offender assessment test.

SUMMARY

Research on the Juvenile Pretrial Test (JPT) began in the 1980's and has continued to the present. This research has led to refinements in the JPT and development of the JPT specifically for juvenile corrections and probation. The JPT have a long history of research and development. The JPT is state-of-the-art in juvenile assessment.

With regard to reliability, all JPT scales have reliability coefficients at .80 or higher. As shown in the most recent study all JPT scales reliability coefficients are at or above .85, and many scales are close to or above .90. These are very impressive reliability statistics, well above the accepted reliability coefficient standard of .80. The JPT is a highly statistically reliable juvenile assessment instrument.

With regard to validity, the JPT scales have been shown to be highly correlated with established criterion measures. For example, the JPT Validity (Truthfulness) Scale is highly statistically correlated with MMPI L Scale and F Scale. JPT Alcohol Severity Scale is correlated with MMPI MacAndrew Scale. JPT Drugs Severity Scale is correlated with MMPI MacAndrew and Psychopathic Deviate scales. JPT Distress Scale is correlated with MMPI Taylor Manifest Anxiety, Depression and Psychasthenia scales. The JPT Adjustment Scale is correlated with MMPI Manifest Hostility, Authority Conflict, Delinquency and Family Discord scales. In addition to these traditional validation studies, the most recent study (page 20) shows that JPT database analysis demonstrates discriminant validity and predictive validity. For example, multiple offenders scored significantly higher on the different JPT scales than first offenders. Alcohol Severity and Drugs Severity scale scores accurately predicted alcohol and drug problems, respectively.

With regard to accuracy, comparisons between obtained scale scores risk range percentages and predicted risk range percentages show that the JPT is accurate to within 1.6 percentage points. Compared to the predicted risk ranges (39% Low risk, 30% Medium risk, 20% Problem risk and 11% Maximum risk) the actual percentage of clients that are placed in each risk range based on their JPT scale scores has been shown in the above study to be very close to these predicted percentages. This is very accurate assessment.

In summary, the statistical properties of the JPT are very impressive and strongly support reliability, validity and accuracy of the JPT. It should be emphasized that the JPT test has been researched on the juvenile population the tests were designed for and JPT scoring procedures are standardized on these juvenile populations. Studies reported herein contain thousands of juvenile JPT test results from several areas of the country and jurisdictions. The JPT has been researched on adjudicated juvenile delinquents, students, juvenile offenders, and adolescent community corrections program clients. Research on the JPT is on-going and refinements will continue to be made to keep pace with the ever changing needs of today's juvenile population.

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