

## **Assessment of Juvenile Domestic Violence Offenders**

### **Abstract**

The validity of the Domestic Violence Inventory – Juvenile (DVI-Juvenile) was investigated in a sample of 542 juvenile domestic violence offenders. The DVI-Juvenile has six scales for measuring juvenile risk of violence (lethality), substance (alcohol and drugs) abuse, controlling behaviors, emotional and mental health problems. Reliability analyses showed that all DVI-Juvenile scales had reliability coefficient alphas of between .85 and .92. DVI-Juvenile scales successfully discriminated between two groups: juveniles with 2 or more domestic violence arrests scored significantly higher than juveniles who had 1 or no such arrests. The Violence and Control scales identified 97% and 98% of juveniles who admitted to being violent and controlling others. The Alcohol and Drugs scales identified juveniles who had been treated for alcohol and drug problems, 99% and 100%, respectively. DVI-Juvenile classification of juvenile risk was shown to be within 2% of predicted risk range percentile scores for all DVI-Juvenile scales.

### **Assessment of Juvenile Violence Offenders**

Juvenile offenders are a unique population that requires assessment unique for them. The Domestic Violence Inventory - Juvenile (DVI-Juvenile) is a test for juvenile domestic violence offenders. It is a juvenile version of the Domestic Violence Inventory. It was designed for juveniles, yet it retains very high statistical reliability, validity and accuracy. The Domestic Violence Inventory (DVI) is an adult domestic violence offender risk and needs test that has been shown to be reliable, valid and accurate. The DVI-Juvenile is comprised of revised or replaced test items that are appropriate for juvenile offenders. The DVI and DVI-Juvenile help evaluate violence prone offenders, substance (alcohol and other drugs) abusers, controlling individuals and the emotionally disturbed. They can be used to measure the severity of domestic violence offender problems in judicial, correctional and probation systems.

The present study validates the Domestic Violence Inventory - Juvenile (DVI-Juvenile). The DVI-Juvenile consists of six scales for measuring juvenile violence (lethality) tendencies (Violence Scale), controlling attitudes and behaviors (Control Scale), alcohol and drug abuse severity (Alcohol & Drugs Scales) and emotional or mental health problems (Stress Coping Abilities Scale). In addition, the Truthfulness Scale measures juvenile truthfulness, denial and minimization while completing the test. Truthfulness Scale scores are used for truth-correcting other scale scores.

The participants were juvenile domestic violence offenders who were assessed by court service programs. The data for this study was obtained from the agencies that use the DVI-Juvenile. Two validation methods were used in this study. The first method (discriminant validity) compared scale scores between two juvenile groups. Group 1 consisted of juveniles

who had one or no domestic violence arrest. Group 2 consisted of juveniles who had two or more domestic violence arrests. It was hypothesized that multiple offenders (Group 2) would score significantly higher than offenders who had 0 or 1 arrest (Group 1). Multiple offenders would be expected to score higher on the Violence Scale because having a second domestic violence arrest is indicative of a serious violence problem.

The second validation method (predictive validity) examined the accuracy at which the DVI-Juvenile identified violence prone and controlling juveniles, problem drinkers and problem drug abusers. In the DVI-Juvenile, alcohol and drug treatment information is obtained from the juveniles' responses to test items. Undoubtedly, there are some offenders who have an alcohol or drug problem but have not been in treatment. Nevertheless, juveniles who have been in treatment would be expected to score in the corresponding scale's problem range. For treatment information the following test items were used, "I go to Alcoholics Anonymous meetings because of my drinking." "I have been treated in a chemical dependency program for a drug problem." The following items were used for violence and control problem identification. "Two or more of the following are true: threatening, explosive, dangerous, violent, hostile." "I have a forceful personality and usually control or dominate others."

For the predictive validity analyses, juveniles were separated into two groups, those who had treatment or admitted problems and those who did not have treatment or did not admit to problems. Then, juvenile scores on the relevant DVI-Juvenile scales were compared. It was predicted that juveniles who had alcohol or drug treatment would score in the problem risk range (70<sup>th</sup> percentile and above) on the Alcohol or Drugs Scales, respectively. Similarly, juveniles who admitted being violent or controlling others would score in the problem risk range on the Violence and Control Scales, respectively. Non-problem was defined in terms of low risk scores (39<sup>th</sup> percentile and below). The percentage of juveniles who had been in treatment or admitted problems and also scored in the 70<sup>th</sup> percentile range and above was considered a correct identification of problems. High percentages of juveniles who had treatment or admitted problems and had elevated problem risk scores would indicate the scales were valid.

## Method

### Subjects

There were 542 juvenile domestic violence offenders tested with the DVI-Juvenile. Data for this study was provided by the court service providers, probation departments and professional community service agencies that use the DVI-Juvenile. Test data were collected during the year 2002. There were 414 males (76.4%) and 128 females (23.6%). The ages of the participants ranged from 14 through 17 as follows: 12 & Under (3.0%); 13 (8.2%); 14 (16.0%); 15 (24.8%); 16 (26.9%); 17 (17.4%); 18 & Over (3.8%). The demographic composition of the participants was as follows. Race/Ethnicity: Caucasian (74.1%); Black (12.3%), Hispanic (8.8%) and Other (4.8%). Education: Sixth grade or less (4.1%); 7<sup>th</sup> grade (9.9%); 8<sup>th</sup> grade (18.8%); 9<sup>th</sup> grade (28.0%); 10<sup>th</sup> grade (22.6%); 11<sup>th</sup> grade (12.6%) and High School graduate (4.1%).

The participants' criminal histories were obtained from their DVI-Juvenile answer sheets. The participants reported this information and staff verified the information provided. Over 86 percent of the juveniles or 467 offenders reported having one or no domestic violence arrest. 312 or 85.4 percent of the males had one or no arrest. 96 or 81.3 percent of the females had one or no arrest. These offenders were designated as Group 1. Over nine percent of the participants had two domestic violence arrests, three percent had three arrests and 2.6 percent had four or more domestic violence

arrests. The youths with two or more domestic violence arrests (multiple offenders) were designated as Group 2. There were 75 offenders or 13.8 percent of the participants in Group 2.

Nearly thirty percent of the youths had been arrested for assault. Over 7 percent of the offenders had one alcohol arrest, three percent had two arrests and 2.4 percent had three or more arrests. Over 12 percent of the youths had one drug arrest, two percent had two arrests and one percent had three or more arrests.

### Procedure

Juveniles completed the DVI-Juvenile as part of their evaluation for domestic violence in court service and community service programs. The DVI-Juvenile contains six measures or scales. These scales are briefly described as follows. The Truthfulness Scale measures the truthfulness, denial and minimization of the respondent while taking the DVI-Juvenile. The Alcohol Scale measures severity of alcohol use or abuse. The Drugs Scale measures severity of drug use or abuse. The Control Scale measures controlling behaviors that affect self and others. The Violence Scale measures offender proneness to commit violence. The Stress Coping Abilities Scale measures ability to cope with stress.

### Results and Discussion

The inter-item reliability (alpha) coefficients for the six DVI-Juvenile scales are presented in Table 1. All scales were highly reliable. All of the alpha reliability coefficients for all DVI-Juvenile scales were at or above 0.85. These results demonstrate that the DVI-Juvenile is a reliable test for domestic violence offender assessment.

**Table 1. Reliability of the DVI-Juvenile**

DVI-Juvenile Scales	Coefficient Alpha	Significance Level
Truthfulness Scale	.85	p<.001
Alcohol Scale	.92	p<.001
Control Scale	.86	p<.001
Drugs Scale	.91	p<.001
Violence Scale	.91	p<.001
Stress Coping Abilities	.92	p<.001

Discriminant results are presented in Table 2. Group 1 (one or no domestic violence arrest) consisted of 467 offenders and Group 2 (multiple offenders) consisted of 75 offenders. For Alcohol Scale comparisons the number of alcohol arrests was used to define first offenders (N=516) and multiple offenders (N=26). For Drug Scale comparisons the number of drug arrests were used to define first offenders (N=529) and multiple offenders (N=13). In the comparisons of DVI-Juvenile scale scores Group 2 scored significantly higher than Group 1 offenders on the Alcohol Scale, Control Scale, Drugs Scale and Violence Scale. Higher scores on these DVI-Juvenile scales are associated with more severe problems.

**Table 2. Comparisons between Group 1 (1 or no arrest) and Group 2 (2 or more domestic violence arrests).**

DVI-Juvenile Scale	Group 1 Mean	Group 2 Mean	T-value	Significance Level
Truthfulness Scale	5.98	5.68	t = 0.54	n.s.
Alcohol Scale*	4.24	16.23	t = 4.81	p<.001
Control Scale	10.31	13.09	t = 3.13	p<.002
Drugs Scale*	7.01	18.23	t = 4.54	p<.001
Violence Scale	27.76	41.48	t = 6.75	p<.001
Stress Coping Abilities	91.28	90.93	t = 0.07	n.s.

Note: Alcohol and drug arrests defined offender status. The Stress Coping Abilities Scale is reversed in that the higher the score the better one copes with stress.

Table 2 shows that scale scores for Group 2 were significantly higher than scores for Group 1 on all DVI-Juvenile scales except the Truthfulness and Stress Coping Abilities Scales. As expected, multiple offenders scored significantly higher on the Alcohol Scale, Control Scale, Drugs Scale and Violence Scale than did offenders with one or no arrest. The Truthfulness Scale shows that Group 1 and Group 2 scores were not significantly different. Stress Coping Abilities Scale results suggest that first offenders and multiple offenders are equally affected by stress and have similar abilities to handle stress.

The Alcohol, Control, Drugs and Violence Scales results support the discriminant validity of the DVI-Juvenile. The offenders who were believed to have more severe problems (multiple offenders) scored significantly higher on these scales than offenders with one or no arrest. The Stress Coping Abilities Scale results indicate that the youthful offenders demonstrated similar abilities to handle the stress in their lives. It is generally accepted that stress exacerbates emotional and mental health symptomatology.

Predictive validity results for the correct identification of problems (violence tendencies, control, drinking and drug abuse problems) are presented in Table 3. Table 3 shows the percentage of juveniles that had or admitted to having problems and who scored in the problem risk range on the selected DVI-Juvenile scales in comparison to youths who scored in the low risk range. For the Alcohol and Drugs Scales problem behavior means the juvenile had alcohol or drug treatment. For the Violence Scale the youth admitted to having a violence problem. For the Control Scale the offender admitted to dominating and controlling others.

For the Alcohol Scale comparisons between problem risk and low risk juveniles, there were 29 youths who reported having been in alcohol treatment. These offenders were considered problem drinkers. All 29 of these juveniles, or 100 percent, had Alcohol Scale scores at or above the 70th percentile. The Alcohol Scale correctly identified all of the juveniles classified as problem drinkers. These results validate the DVI-Juvenile Alcohol Scale.

The Drugs Scale accurately identified juvenile offenders who have drug problems. There were 60 offenders who reported having been in drug treatment. All 60 of these offenders, or 100 percent, had Drugs Scale scores at or above the 70<sup>th</sup> percentile. These results support the validity of the DVI-Juvenile Drugs Scale.

For Violence Scale comparisons there were 150 offenders who admitted having violence problems. Of these 150 youths, 145 individuals or 96.7 percent had Violence Scale scores in the

problem range (70<sup>th</sup> percentile and above). These results validate the Violence Scale. Control Scale comparisons found that for the 120 juveniles who admitted to dominating and controlling others, 118 or 98.3 percent had Control Scale scores in the problem range. These result supports the validity of the Control Scale.

**Table 3. Predictive Validity of the DVI-Juvenile**

DVI-Juvenile Scale	Correct Identification of Problem Behavior
Alcohol	100%
Drugs	100%
Violence	96.7%
Control	98.3%

For ease in interpreting juvenile domestic violence offender risk, DVI-Juvenile scale scores were divided into four risk ranges: low risk (zero to 39<sup>th</sup> percentile), medium risk (40 to 69<sup>th</sup> percentile), problem risk (70 to 89<sup>th</sup> percentile), and severe problem risk (90 to 100<sup>th</sup> percentile). By definition the expected percentages of juvenile offenders scoring in each risk range (for each scale) is: low risk (39%), medium risk (30%), problem risk (20%), and severe problem risk (11%). Scores at or above the 70<sup>th</sup> percentile would identify juvenile offenders as having problems.

The above predictive validity results lend support for using these particular percentages. The 70<sup>th</sup> percentile cut off for problem identification correctly classified 96 percent or more of problem juvenile offenders. The low risk level of 39 percent avoids putting a large percentage of offenders into a “moderate” range.

Risk range percentile scores were derived by adding points for test items points and criminal history points, if applicable then converting to percentages. These results are presented in Table 4. Risk range percentile scores represent degree of severity. Analysis of the DVI-Juvenile risk range percentile scores involved comparing the offender’s obtained risk range percentile scores to predicted risk range percentages as defined above. These percentages are shown in parentheses in the top row of Table 4. The actual percentage of juveniles falling in each of the four risk ranges, based on their risk range percentile scores, was compared to these predicted percentages. The differences between predicted and obtained are shown in parentheses.

**Table 4. Accuracy of DVI-Juvenile Risk Range Percentile Scores**

Scale	Low Risk (39%)		Medium Risk (30%)		Problem Risk (20%)		Severe Problem (11%)	
Truthfulness Scale	37.5	<b>(1.5)</b>	31.1	<b>(1.1)</b>	21.4	<b>(1.4)</b>	10.0	<b>(1.0)</b>
Alcohol Scale	38.9	<b>(0.1)</b>	29.4	<b>(0.6)</b>	20.6	<b>(0.6)</b>	11.1	<b>(0.1)</b>
Control Scale	37.1	<b>(1.9)</b>	32.1	<b>(2.1)</b>	19.7	<b>(0.3)</b>	11.1	<b>(0.1)</b>
Drugs Scale	39.7	<b>(0.7)</b>	28.6	<b>(1.4)</b>	20.6	<b>(0.6)</b>	11.1	<b>(0.1)</b>
Violence Scale	38.4	<b>(0.6)</b>	30.4	<b>(0.4)</b>	20.9	<b>(0.9)</b>	10.3	<b>(0.7)</b>
Stress Coping Abilities	39.3	<b>(0.3)</b>	29.7	<b>(0.3)</b>	20.7	<b>(0.7)</b>	10.3	<b>(0.7)</b>

As shown in Table 4, the objectively obtained percentages of participants falling in each risk range were very close to the expected percentages for each risk category. All of the obtained risk range percentages were within 2.1 percentage points of the expected percentages and many (18 of 24 possible) were within one percentage point. Only two obtained percentages were more than 1.5 percent from the expected percentages and they were the Control Scale low risk (1.9%) and medium risk classification (2.1%). These results demonstrate that DVI-Juvenile risk range percentile scores are accurate.

### Conclusions

This study demonstrated that the DVI-Juvenile is a reliable and valid assessment test for juvenile domestic violence offenders. Reliability results showed that all six DVI-Juvenile scales were highly reliable. Reliability is necessary in juvenile domestic violence screening tests for accurate measurement of juvenile offender risk.

Discriminant validity analyses demonstrated that multiple offenders (had prior domestic violence arrests) scored significantly higher than offenders with one or no arrest. Predictive validity analyses demonstrated that the DVI-Juvenile identified domestic violence offenders who had violence, control and substance abuse problems. The Violence Scale identified offenders who admitted having domestic violence problems. The Control Scale correctly identified offenders who admitted dominating and controlling others. The Alcohol and Drugs Scales correctly identified offenders who were in or desired treatment for alcohol and drugs, respectively. Furthermore, obtained risk range percentages on all DVI-Juvenile scales very closely approximated predicted percentages. These results support the validity of the DVI-Juvenile.

Decisions regarding supervision level and/or intervention programs for juvenile domestic violence offender is greatly enhanced by DVI-Juvenile test results. The DVI-Juvenile can be used to tailor intervention (levels of supervision and treatment) to each juvenile domestic violence offender based upon their assessment results. Low scale scores are associated with low levels of supervision as well as intervention and treatment, whereas high scale scores relate to more intense intervention/treatment recommendations and levels of supervision. Placing juvenile domestic violence offenders in appropriate treatment can enhance the likelihood that a juvenile offender will complete treatment, benefit from program participation and change their violent behavior.