United Community Services of Johnson County

An Analysis of the Domestic Violence Lethality Assessment

in Johnson County, Kansas

Presented by United Community Services of Johnson County

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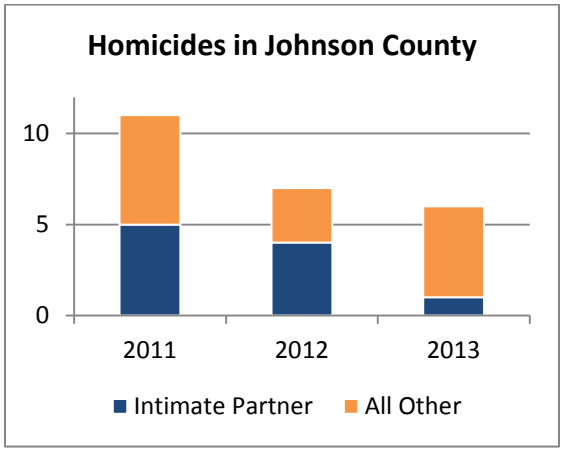
Process Assessment of the Domestic Violence Lethality Assessment by Marya Schott, Community Initiatives Director, United Community Services

Describing and Testing the Predictive Validity of the Domestic Violence Lethality Assessment by Alexander M. Holsinger, Ph.D., Professor of Criminal Justice and Criminology, University of Missouri-Kansas City

Introduction/Background

The Johnson County Lethality Assessment Program provides local law enforcement with an actuarial risk assessment tool and an accompanying protocol with the goal of preventing intimate partner homicide, increasing victim safety and providing victims with immediate access to services (*COMVAC Conference, September 2012*). The Domestic Violence Lethality Assessment (DVLA) is the actuarial tool used by law enforcement. Introduced in Johnson County, Kansas by the Johnson County Office of District Attorney, it also assists those in the justice system to evaluate cases of intimate partner violence. Implementation began July 1, 2011. The Office of the District Attorney brought together law enforcement, SAFEHOME (Johnson County's domestic violence shelter), the Courts, and other stakeholders with the goal to reduce domestic violence homicides and increase victim safety.



In Johnson County during 2011 there were five deaths considered as intimate partner homicide. In 2013, there was one.

During the 12-months before the DVLA was introduced, there were 3,251 hotline calls to SAFEHOME. The first 12-months of implementation (July 2011-June 2012), SAFEHOME received a total of 4,487 hotlines calls; about 14 percent of calls were initiated by law enforcement in accordance with DVLA protocol. Calls in the 12-months ending in June 2013 totaled 4,197, with a similar percentage due to the DVLA.

United Community Services was awarded a 10th Judicial District Court Domestic Violence Special Program Fee Grant for a research project to analyze the implementation of the Domestic Violence Lethality Assessment (DVLA) and determine if improvements were needed. This project had two components: validity testing and process assessment.

1) Validity Testing – Is the tool effectively predicting risk? Although the DVLA is to assess risk for lethality – not recidivism, for the purpose of this project, it was determined that the best indicator was to consider risk for new incidents, e.g. repeat offending or recidivism, defined as: 1) any new case filing, except a non-DUI traffic, and 2) any new domestic violence case filing.

A domestic violence assessment developed in 2005 by the Maryland Network Against Domestic Violence currently is used in jurisdictions in 32 states. The Johnson County Office of District Attorney modified this assessment by adding questions and making other changes, based upon research from the Department of Justice and a review of various articles and studies.

During the first six months the DVLA was used in Johnson County, anecdotal information from the judicial system was that too many assessments resulted in a high score. Localized tests of validation became a priority given this feedback, the local modifications, and because the DVLA was developed in another geographic locale using a different population of offenders.

Dr. Alex Holsinger, University of Missouri Kansas City Criminal Justice and Criminology Department, conducted the validation research. He conducted an extensive study that included a validation of the DVLA, and related recommendations to strengthen the use of the tool. In addition, he validated the Revised Domestic Violence Screening Instrument (DVSI-R), the risk tool used post-conviction with offenders to assist in determining the need for batterer intervention services. The DVSI-R is a validated risk assessment instrument which measures risk of continued violence based upon the offender's responses to 11 questions. In some states the DVSI-R guides recommendations to the courts on protective orders, criminal placement (prosecution or pre-trial diversion) and treatment or services (Williams, Kirk and Grant, Stephen. *"Empirically Examining the Risk of Intimate Partner Violence: The Revised Domestic Violence Screening Instrument."* Association of Schools of Public Health. July-Aug. 2006 <http://ncbi.nlm.hih.gov>.). *"Describing and Testing the Predictive Validity of the Domestic Violence Lethality Assessment,"* Dr. Holsinger's complete report, begins on page 12.

2) Process Assessment United Community Services of Johnson County assessed how the process is working by gathering input from key parties involved. This included judges, law enforcement, the Johnson County District Attorney's Office, Court Services (pre-trial and

probation), victims of domestic violence, providers of batterer intervention services, and SAFEHOME staff.

The DVLA has 17 questions which the responding officer asks the victim (*listed in appendix, page 37*). Based upon the victim's responses to those questions, the situation can be deemed high-risk. If high-risk, the officer places a call to the SAFEHOME hotline and puts the victim on the phone. In some cases, victims seek immediate shelter at SAFEHOME. Others may seek it later. All high-risk assessment scores trigger a follow-up by law enforcement within two or three days. If the perpetrator is there when follow-up is done and there is a Protection of Abuse order, arrest of the perpetrator and higher bond are likely.

In Johnson County, completed DVLAs are included in police reports which are available to judges hearing domestic violence cases. DVLAs are also available to Court Service Officers who supervise domestic violence offenders on probation and to Court Service Officers who provide pre-trial services, as well as Department of Corrections Officers who provide supervision.

Key Findings and Summary of Recommendations

Key Findings

- The DVLA possesses predictive validity for new case filings and new domestic violence case filings (*page 33).*
- While the composite DVLA scale possesses predictive validity, some of the questions on DVLA are not related to outcomes of new case filings and new domestic violence case filings *(page 33).* However, this project did not examine if the questions which are not related to outcomes of new case filings, have other merits. For example, a research report published in the National Institute of Justice Journal stated that when a gun was in the house, an abused woman was six times more likely than other abused women to be killed (Campbell, Jacquelyn, et. al*. "Assessing Risk Factors for Intimate Partner Violence."* National Institute of Justice Journal, Issue No. 250, November 2003 www.ncjrs.gov).
- If a revised set of cutoff scores was used, it would tighten scoring and adjust the threshold for "high" level of risk *(pages 29-31,34,36).*
- The DVLA is helping to get more victims connected to services *(page 8).*

- The DVLA is widely accepted by Johnson County law enforcement and generally is given high remarks (*page 7).*
- DVLA is being used when determining recommendations for bond; it overrides other risk assessments (*page 11).*
- The DVSI-R categorization is significantly related to outcome (recidivism, e.g. new case filings and new domestic violence case filings) *(page 34).*

Summary of Recommendations

From Predictive Validity Report: *(See pages 34-36 for complete recommendations in Validity Report.)*

1) Upon analysis of adjusting cut-off scores (schedules should be used as presented in Table 9: low 0-4; medium 5-8; high 9-14), policy and decision making procedures should be developed accordingly.

2) Validation work should be continued.

- More cases for analysis purposes would be beneficial. Consider how to ensure DVLA scores or scanned copies of the DVLA are consistently entered into the Justice Information Management System (JIMS). Twenty-seven percent of the domestic violence case filings entered into JIMS for period September 2011-March 2012 included a scanned DVLA.
- Examine only DVLA statistically significant questions. It is possible that the predictive validity of scale could be enhanced if non-significant questions were eliminated.
- Predictive validity of future case filings could be enhanced if some questions that are both statistically significant and particularly substantial in differentiating rates of new case filings and/or new domestic violence case filings, are given more weight.
- Several questions on the DVLA are two-fold (methodologically considered as double-barreled weakness – questions 7 and 12, for example). If the DVLA is modified to address this, tests of validity should be conducted.

From UCS Process Assessment:

1) While law enforcement was positive about the training they received from the Office of District Attorney's Office, other stakeholders and Dr. Holsinger's review of DVLAs suggest the following regarding DVLA training with law enforcement:

- Emphasize sensitivity about victim (include information about why women stay in abusive relationships) *(page 8).*
- Remind officers what to do when a victim's response to a question does not seem accurate or needs further explanation. (When Dr. Holsinger reviewed the DVLAs, he found a few assessments that officers scored one-way according to the victim's response, but wrote other information that contradicted the score, based upon the officer's observation or further conversation with the victim. Most officers filled out the DVLA in a straightforward way.)
- In addition to initial training at the Police Academy, continue to offer further training to law enforcement officers in the field. (The Johnson County District Attorney's Office provides opportunities for additional training at the request of law enforcement.)

2) Address language barriers *(page 8)*

- Interview victim in his/her native language.
- Do not use children as interpreters of the DVLA questions and responses.

3) Consider if batterer intervention service providers should have access to the DVLA score and/or responses to all questions on DVLA. According to batterer intervention providers, this would provide additional information which might make a difference in their work with the batterer *(page 9).*

How the Process Works

- Law enforcement is called to a domestic violence disturbance of intimate partner violence. Officer separates the victim and the abuser.
- Officer administers the Domestic Violence Lethality Assessment (DVLA) by asking the victim the series of questions, and scores the assessment.
- If the victim scores high, the officer calls SAFEHOME hotline and puts the victim in contact with a SAFEHOME hotline advocate.
- SAFEHOME asks if the victim is safe. If female victim is not safe and needs shelter, SAFEHOME works with victim to get her (and her children, if applicable) into shelter. If the victim is male and needs shelter, SAFEHOME accesses another one of its resources to ensure that he has a safe place to go.
- SAFEHOME asks if victim would like a follow-up call from the advocate, and if he/she would like to come to SAFEHOME for a Clinical Intake Assessment.
- If DVLA score is high, law enforcement officer follows-up with victim within two or three days, either in-person or by telephone.
- If abuser is there when officer follows-up and there is a Protection of Abuse order, arrest of the abuser and higher bond are likely.
- DVLAs are included in police reports which are available to judges hearing domestic violence cases. Judges' use of this information varies. Most judges take it into consideration, except when prohibited by rules of evidence.
- Results of the DVLA are available to the Office of District Attorney. If the score is high, the DA's Office uses it when considering the recommendation for bond.
- Results of the DVLA are available to Court Service Officers (CSO) who supervise domestic violence offenders on probation, and to Court Service Officers who provide pre-trial services. CSOs who supervise probation use it for information only, not case-planning. In pre-trial services (bond), high DVLA scores move offenders into a higher risk category.
- Results of DVLA are available to officers within Johnson County Department of Corrections who oversee felony offenders on supervision. The DVLA is considered during the initial gathering of information about the offender.

<u>Survey and Interview/Discussion Results</u>

United Community Services surveyed law enforcement (police departments and the Sheriff's Office) and District Court Judges (Johnson County, 10th Judicial District). Interviews were held with representatives of SAFEHOME, victims of domestic violence, providers of

batterer intervention services, Johnson County Office of District Attorney, Johnson County Court Services – probation and pre-trial services.

Input from stakeholders

Law Enforcement – Six law enforcement agencies responded to a survey about the DVLA. Generally, law enforcement was very positive about the use of the DVLA. Eighty-three percent agreed that the DVLA:

1) Helps identify those at high-risk for future intimate partner violence;
2) Leads to better outcomes; and,
3) Provides information to guide decisions.

Law enforcement was asked about their follow-up with victims. All of the surveyed law enforcement agencies stated they follow-up by phone and/or in-person. When asked if victims are more inclined to talk with officers during the follow-up, the following comments were made:

- When law enforcement responds to a call and the victims are upset, they are willing to tell more.
- Most victims feel good about the follow-up phone call and questions we ask. It shows we care about them and if they want to help themselves, the services are there.
- Victims are much more receptive to an initial phone call for follow-up and gathering additional information, as opposed to a knock at the door by law enforcement.

Training on the DVLA is provided by the Johnson County Office of District Attorney. Eighty-three percent of law enforcement completing the survey affirmed the process for using the DVLA was clear, and there were no suggestions for improving the training.

Additional comments from law enforcement:

- The assessment is a good way to offer services to victims. Prior to the DVLA, we just told victims about the services (provided a form with phone numbers).
- The DVLA program works. There are numerous occasions when the victim in a domestic violence incident reports the incident and then back-tracks when the court proceeding arrives. The answers on the DVLA provide the assigned detective and District Attorney's Office further documentation in which to assist an uncooperative victim who is coming to trial.

Courts/Judges – Four judges responded to the survey. Most agreed that the DVLA has helped Courts identify offenders who need closer supervision. Half agreed with the statements that the DVLA helps identify those at high-risk for future partner violence, and conducting the DVLA leads to better outcomes (two responded "don't know; no opinion" to both statements).

Three agreed with the statement "the DVLA provides information to guide decisions." Judges were asked if they take the DVLA score into consideration when making a decision. Most responded yes; one added "except when prohibited by rules of evidence."

SAFEHOME - As a result of use of the DVLA, SAFEHOME has experienced a dramatic increase in the number of calls to their 24-hour hotline, and according to SAFEHOME's Clinical Director, the demand for services continues to increase, in part due to implementation of the Lethality Assessment Program (LAP), SAFEHOME's response to the DVLA. It was during a follow-up call between a SAFEHOME advocate and a victim who had been given the DVLA, that SAFEHOME learned law enforcement used a child to interpret the questions on the DVLA.

During the 12-months before the DVLA was introduced, there were 3,251 hotline calls to SAFEHOME. The first 12-months of implementation (July 2011-June 2012), SAFEHOME received a total of 4,487 hotlines calls; about 14 percent of calls were initiated by law enforcement in accordance with DVLA protocol. Calls in the 12-months ending in June 2013 totaled 4,197, with a similar percentage due to the DVLA.

The number of women who accessed counseling increased by 6 percent from the 12-months before the use of DVLA (July 2010 – June 2011), compared to the second year of its use (July 2012- June 2013). During that same time frame, the number of children who accessed counseling increased by 82 percent (from 136 to 248). During the first two years of the DVLA, 218 victims scheduled a Clinical Intake Assessment with SAFEHOME when law enforcement dialed the hotline for the victim, and 38 directly came into shelter as a result of the hotline phone call.

Victims/Survivors of Domestic Violence - Two victims of domestic violence served by SAFEHOME were willing to be interviewed for this project. Victims were asked about the process. One explained that law enforcement asked "yes or no questions" and that helped

because she could not offer excuses. Both victims agreed that answering the DVLA questions increased their awareness of being in danger.

When asked what, if anything, would have made the interaction with law enforcement better, one responded that she thought the officers had different levels of understanding domestic violence. She said, "I wish one had not asked me 'why stay with him all these years?' He didn't say it in a demeaning way, but I already felt bad and this made it worse. I was worried about my husband still being there. The question was not appropriate. I was worried I had called the police too early – there weren't enough signs of domestic violence (bruises, etc.)." The other said, "It would have been better if someone talked to me in Spanish, rather than through an interpreter on the phone."

Batterer Intervention – Representatives of two agency's batterer intervention programs were interviewed. The Kansas Attorney General's Office certifies batterer intervention programs. Batterer intervention program providers do not know the score of the DVLA. When asked if it would be helpful to know it, the response was that it would be helpful because it provides more information, such as an indication of the seriousness of the abuse, which might make a difference in the provider's work with the batterer. Providers talked about the process and what has changed over the two years since the DVLA was implemented:

> The majority of clients are in the program as result of being arrested and it is part of their court order. The offender has to get a batterer assessment to determine if batterer intervention is appropriate. The batterer assessment is called "Kansas Attorney General Domestic Violence Offender Interview Form" (commonly referred to as DV evaluation, DV assessment, or AG assessment). It is very lengthy and thorough. The Revised Domestic Violence Screening Instrument (DVSI-R) is also part of the assessment. The DVSI-R includes questions about evidence of family violence. The AG assessment helps to determine if there is a pattern of abuse (repetitive) or a one-time loss of self-control. Based upon the results, the offender will be court ordered to participate in a batterer intervention program.
>
> There has been an increase in referrals for batterer assessments and batterer intervention group participation, and a decrease in referrals for anger management assessment and anger management group counseling. In the past many people were allowed to attend anger management, when batterer intervention was a more appropriate treatment.

Providers were asked for their recommendations or additional comments. Responses were:

- I'd like to see more training on domestic violence for law enforcement, especially outside of the Police Academy. For example, training should include women's use of force and how to recognize strangulation (takes several days for bruising to show).
- I'm pleased with the direction this is going; it holds people accountable.
- The DV Lethality Assessment is beneficial. At the time of police contact, it helps victims realize the danger they are in. However, some of the questions may lead to misleading results. For example, there is a question about if perpetrator is unemployed. If yes, it increases the DVLA score; however, it could be that the guy is retired.

The Johnson County District Attorney's (DA) Office – The DA's Office was asked how they use the DVLA score. The response was that the DVLA is not considered when making charging decisions; it is not factual. However, if the DVLA score is high, it is used for bond consideration. For example, if score is high then the DA's Office opposes a Personal Recognizance (PR) bond and contact between victim and perpetrator. Further, there is now a standard DV "tag" law**.** Pursuant to state statute, if person is convicted of a domestic violence offense, the case is "tagged" and information sent to the Kansas Bureau of Investigation. This gives judges the power to order a batterer assessment which leads to anger management or higher level of services (batterer intervention). "Law enforcement has accepted the use of the DVLA and our office wants to reinforce their use of the DVLA. I hope it has stopped the revolving door" (*repeat domestic violence*), said an attorney within the DA's Office.

Court Services/Probation – Court Service Officers (CSO) who oversee offenders on probation have access to the DVLA (responses to each question and the total score). According to the CSO interviewed, the DVLA is for information only; not for case planning. The LSI-R (Level of Services Inventory-Revised) is used for case planning. The officer made the analogy that the DVLA is a piece of the puzzle, and provided the following example. There is question on the LSI-R about family members/home life. The Court Service Officer can compare the responses to this question to the responses on the DVLA, and may find conflicting information. Domestic violence offenders are required to get a domestic violence assessment. Whatever is recommended based upon the domestic violence assessment dictates the case plan/level of

service. According the CSO, the DVLA helps the CSO know the victim's side. The CSO said, "It also helps officers see if an offender's story has holes in it."

The CSO can only give a legal affidavit to a batterer intervention provider. According to the CSO, if the DVLA could be given to the batterer intervention provider, it would be of value; it would give them more information to work with.

Court Services/Pre-Trial (bond) - The CSO who provides pre-trial services has access to the DVLA**.** According to the officer interviewed, a pre-trial risk needs tool (risk to commit crime or to run) indicates level of supervision needed. If there is a high DVLA score, it overrides the pre-trial risk tool and moves offender into a higher risk category. The CSO makes a recommendation to Victim Assistance Unit in District Attorney's Office about no-contact orders, etc. Attorneys within the Victim Assistance Unit present information to judge. According to the CSO interviewed, the DVLA affects no-contact orders.

Also according to the CSO interviewed, the DVLA is tied to the police report and helps the CSO know if there are other issues such as substance abuse – or something else that would normally not be seen with the pre-trial risk tool. The CSO further explained that domestic violence defendants usually score low on the pre-trial risk tool, and because high scores on DVLA are interpreted as higher risk, it makes defendants more accountable; they have to report more often to the bond supervision officer.

Conclusion

The DVLA is well accepted and consistently being used by law enforcement in Johnson County. Its use has resulted in increased referrals to SAFEHOME. Modest improvements to the process could strengthen its overall impact (*Recommendations, page 5*).

Describing and Testing the Predictive Validity of the

Domestic Violence Lethality Assessment

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December 16, 2013

Introduction & Background

While standardized risk assessments have been commonplace in corrections' agencies for several decades, their use is somewhat less common in police work. Much of the time the fast-paced nature of police work does not lend itself well to the use of inventories with psychometric properties, or checklists designed to help inform decision-making. Actuarial risk assessments may have a role however, when it comes to specialized cases such as domestic violence incidents.

Generally, in the U.S., police response to domestic violence has evolved substantially over the decades, moving from a reluctance to "get involved" in what used to be viewed as a "domestic incident" or private matter that did not warrant police intervention, to mandatory arrest policies for cases that meet certain criteria. Over time increasing amounts of concern and attention have been paid to domestic violence cases by many areas of the Criminal Justice system (and other social and human service agencies), as the "right" response often appears elusive, and/or may hold unintended consequences.

Repeat-offenses, or recidivism, and the desire to reduce recidivism, is one of the top priorities of most if not all Criminal Justice agencies. In an effort to help determine which offenders are most likely to recidivate, many agencies have turned to the use of actuarial risk assessments. As noted above, the use of actuarial risk assessment is not unheard of in police work, yet it remains much less common when compared to corrections work. Regardless of the frequency of use, the field of risk assessment has made several advances in recent years, increasing the ability to predict which offenders, or 'cases' in the instance of domestic violence cases, are at the highest risk for repeat offending. If Criminal Justice professionals can reliably

determine which cases/offenders are most likely to return to the attention of the police, they can direct time and resources accordingly, potentially reducing that likelihood, and harm.

Domestic violence cases often present unique challenges to the police and other actors in the Criminal Justice system due to their unique nature and attributes. As noted above a substantial amount of evolution has occurred regarding the ways in which the police and other agencies respond to domestic violence (hereafter DV) cases. One example of that evolution can be seen in the "Domestic Violence Lethality Assessment" currently in use by police in Johnson County, Kansas. The "Domestic Violence Lethality Assessment" (hereafter DVLA) is an actuarial tool that involves gathering information from the victim (as opposed to the offender), and is used to determine when a referral is appropriate, as well as overall risk of recidivism. The DVLA was introduced by the Johnson County District Attorney's office in July of 2011. The original version of the instrument was developed in the state of Maryland; however, some local modifications (in the form of added questions, and some other modifications) were conducted based on the need to increase local face-validity. In light of these changes, as well as the fact that the DVLA was developed in another geographical locale using a different population of offenders, localized tests of validation became a priority.

The DVLA

The DVLA contains 17 questions that are asked to the victim by the responding officer, and are answered with either a "Yes" or "No" response (i.e., the officer interviews the victim using the DVLA and indicates responses on a standardized form). Officers using the DVLA receive training as to how items should be scored; while some of the questions are fairly clear-cut (e.g., "Is he/she [the suspect batterer] unemployed?" others may require some probing and further questioning to get a clear response (e.g., "Have you attempted to leave him/her?"). The

first three questions (see below) on the DVLA indicate the need for a protocol referral if any of them are answered as "Yes". Once the 17 questions have been answered, the officer indicates the number of questions that were assessed as "Yes" by writing the number in the appropriate blank. This summary number can be considered the DVLA's composite score, and will be used accordingly in the analyses below.

In addition to the 17 questions and the summary score, the DVLA also asks the officer to indicate whether or not the victim refused to answer any questions, as well as whether or not the victim was screened in accordance to protocol (each of these separate items are indicated with a 'check' mark indicating the affirmative, or, are left blank indicating the negative). The last item on the DVLA is another question with a "Yes/No" response contingency, asking whether or not the victim spoke with a hotline counselor if the case was assessed as "high risk".

The 17 scored questions on the DVLA are as follows:

1. Has he/she ever used a weapon against you or threatened you with a weapon?
2. Has he/she ever threatened to kill you or your children?
3. Do you think he/she might try to kill you?
4. Does he/she own or have access to guns?
5. Has he/she ever strangled or tried to strangle you?
6. Is he/she violently or constantly jealous or does he/she control most of your daily activities?
7. Have you ever attempted to leave him/her? Are you currently separated?
8. Is he/she unemployed?
9. Has he/she ever threatened to kill himself/herself?
10. Does he/she follow or spy on you, leave you threatening notes or messages on answering machines or call you after you have told him/her to stop?
11. Does he/she have a drug or alcohol problem?
12. Has the physical violence increased in severity or frequency?
13. Are you pregnant? If not, has he ever hit you while you were pregnant?
14. Has he/she ever destroyed your property?
15. Has he/she ever abused an animal?
16. Has he/she ever made you have sex with him/her or perform sexual acts on him/her when you did not want to?
17. Has he/she ever been arrested for domestic violence?

Analytic approach

In order to fully explore the DVLA summary score as well as each of the individual questions/items, the following analyses will be conducted: (1) A frequency distribution of the scores will be developed, describing the data that were provided by Johnson County. (2) The total summary score will be tested for predictive validity, both for "any new filing" (the first outcome – meaning any new case, for any charge save non-DUI traffic that occurred after the DVLA was filled out in response to a DV call for service), as well as "any new DV filing" (the second outcome – meaning any new DV charge that occurs after the DVLA was filled out). (3) Each of the individual 17 items will also be tested for their relationship with both outcomes as outlined in #2 above. (4) The reliability of the overall 17 point scale will be tested as well utilizing reliability procedures (i.e., analyses that are geared toward determining to what extent the 17 items belong together in the same scale). (5) An attempt at developing cutoff scores (i.e., categorizations of the total score) will be conducted as well, utilizing both any new filing, and DV filing as separate outcomes. (6) The relationship between the DVLA summary score and the DVSIR will be tested as well. While the DVLA is an instrument that's scored using information from the victim, the DVSIR is scored using information regarding the suspect. Only the summary categorizations were available for the DVSIR (not the individual raw scores) however the categorizations (Admin, Minimum, Moderate, Maximum) will allow for a test of the extent to which the two tools are assessing DV cases in the same manner.

Results

Objective #1: The frequency distribution for DVLA scores

A total of 272 cases had complete and usable[1] DVLA assessments (N=272). The totality of the summary scores reveals a slightly positively skewed distribution, where the mean (average) score (mean = 5.54 pts.) is pulled slightly above the median (middle) score (median = 5.00). Table 1 presents the frequency distribution for each of the scores as they appear in the data, ranging from 0 to 14 pts. The scores were also divided into 'natural' portions, so an approximate third of the cases appear in each of three categories (Low, Medium, and High) pursuant to the number of points scored. Table 2 presents the re-coded scores and the "one-third" based categories. While these categorizations do not represent recommendations for official cut-off scores at this point, they do offer the ability to see what outcomes can be expected from natural groups of scores (actual categorizations of 'low', 'medium' and 'high' risk may ultimately end up utilizing a different organization of scores, although the nature of the scale and categories will remain linear in nature, with increases in likelihood of new charge/DV charge increasing with each increase in score/category).

As noted in Table 1 as well as the information above, the distribution appears to have rough normal attributes with some anomalies (i.e., the scores do not follow a normal bell-shaped curve, although more data/cases might reveal a somewhat smoother normal distribution). In addition, according to Table 2, the natural (rough) one-third cutoff categorizations appear to be 0 to 3 points ("low", with 33.8% of the sample falling in this range), 4 to 6 points ("medium", with 28.7% of the sample in this range), and 7 to 14 points ("high", with 37.5% of the sample falling in this range).

[1] Some assessments -- < 5 – had questions that were left unanswered. In these instances an unanswered question was treated as a "No" response allowing the case to remain in the analyses.

Table 1. Frequency distribution for DVLA scores (N = 272)

Score	Frequency	Percent	Cumulative Percent
0	12	4.4%	4.4%
1	33	12.1%	16.5%
2	21	7.7%	24.3%
3	26	9.6%	33.8%
4	19	7.0%	40.8%
5	26	9.6%	50.4%
6	33	12.1%	62.5%
7	24	8.8%	71.3%
8	20	7.4%	78.7%
9	15	5.5%	84.2%
10	14	5.1%	89.3%
11	13	4.8%	94.1%
12	7	2.6%	96.7%
13	6	2.2%	98.9%
14	3	1.1%	100.0%

Table 2. Categorization of total DVLA scores into thirds

Category	Frequency	Percent	Cumulative Percent
Low (0 to 3 pts.)	93	33.8%	33.8%
Med. (4 to 6 pts.)	78	28.7%	62.5%
High (7 to 14 pts.)	102	37.5%	100.0%

Objective #2: Testing the predictive validity of the DVLA scale

The predictive validity of the DVLA scale will be tested via three analytic techniques. Specifically, the zero-order correlations will be calculated (Pearson's r) which is a commonly used statistic in order to assess the statistical relationship between two linear variables. While the outcomes in the current analyses are dichotomous (coded as "0" the event did not happen after DVLA assessment, and "1" the event did happen after DVLA assessment), Pearson's r is a commonly observed statistic to at least begin exploring the relationship between a summary

scale and a binary (two-category) outcome. In addition, AUC-ROC[2] analysis will be conducted, which is another commonly utilized procedure that tests the extent to which a linear scale properly classifies cases into (again) a binary outcome. Finally, logistic regression analysis will be conducted in order to determine specifically to what extent increases in the linear scale (the DVLA score) are associated with increases in the likelihood that the event will occur. As noted above two outcome measures are utilized for these analyses, and they are "any new filing" (meaning any charge, after the initial DVLA assessment), and "any new DV filing" (meaning any new DV charge, after the initial DVLA assessment).

Table 3 contains the results for both Pearson's r and AUC-ROC analyses using each of the two outcomes noted above. In both cases (for "any new filing" and "any new DV filing") the DVLA scale appears to perform at least adequately. In the case of "any new filing" the value for Pearson's r is .311, and is statistically significant at the p<.001 level. The results of these analyses indicate that there is a positive and significant relationship between the DVLA score

Table 3. The relationship between the DVLA summary score and outcome

Outcome	Statistic	Value	Sig. level
Any new filing	Pearson's r	.311	p < .001
New DV filing	Pearson's r	.249	p < .001
Any new filing	AUC-ROC	.708	
New DV filing	AUC-ROC	.705	

Table 4. Logistic regression using DVLA composite score to predict outcome

Outcome	Coefficient	Sig. level	Exp(B)
Any new filing	.217	p < .001	1.243
New DV filing	.206	p < .001	1.229

[2] "AUC-ROC" is often referred to as "Area under the curve" analysis.

and the likelihood of any new filing occurring (put another way, as the score on the DVLA increases, so does the likelihood of any new filing occurring, and again, the relationship is statistically significant). In addition, the value of Pearson's r would be considered relatively strong, when compared generally to the risk prediction literature (particularly pre-adjudication risk assessment literature). Likewise, the results of the analyses reveal similar results when testing the relationship between DVLA and any new DV filing. The value for Pearson's r in this instance was .249 – well into the 'acceptable' range when considering the totality of the risk prediction literature, and this value was also statistically significant ($p<.001$). In short, as the score on the DVLA increases, so does the likelihood that a new DV filing will occur.

Table 3 also contains the results for the AUC-ROC analyses. Again, in both instances (for "any new filing" and "any new DV filing") effective results were revealed. In risk prediction research (particularly risk prediction research that occurs *pre-adjudication*) AUC-ROC values of .600 and above are largely considered "acceptable" indicators of a risk classification scale, properly classifying "successes" and "failures". For "any new filing" the AUC-ROC value was .708, well above the "acceptable" benchmark for this particular statistic. Likewise, for "any new DV filing" the AUC-ROC was .705. Based on these results, it can be stated that there is a statistically adequate and constructive relationship between the DVLA and each outcome, and there is reason to believe that the results of the DVLA can help reliably predict the likelihood of future events (charges).

In order to further test the predictive validity of the composite DVLA scale, logistic regression was conducted. Logistic regression represents a redundant test of the relationship between the composite DVLA score and the likelihood of a binary outcome occurring (e.g.,

"new filing"), however, this procedure has the added advantage of presenting the statistical odds of increase in the likelihood of the outcome occurring, *for each unit increase in the scale*. The results of the logistic regression models are contained in Table 4, and again reveal a statistically significant relationship between DVLA composite score, and "any new filing". The coefficient (.217) assessing the relationship is positive, and statistically significant indicating again that as the score on the DVLA increases, so does the likelihood of any new filing occurring. In addition, the Exponent B statistic (Exp[B]) reveals a value of 1.243, which means that the likelihood of any new filing occurring increases by 24% (the amount above 1.000 for Exp[B]) with each point increase in the DVLA scale. For example, the base rate of "any new filing" for these data is 26.2% (meaning of all the cases, 26.2% of them had a new filing of some kind). The results of the logistic regression reveal that for each point increase in the DVLA, the likelihood of any new filing will increase by 24% *of 26%* (the base rate), or, approximately 6% overall. In sum, each point increase in the DVLA scale represents a 6% increase in the likelihood that any new filing will occur.

Similar results were revealed via the logistic regression predicting "any new DV filing". Again the coefficient was positive (.206) and statistically significant ($p < .001$) indicating that as the DVLA composite score increase, so does the likelihood of a new DV filing occurring. In addition, according to the Exp(B) statistic, the likelihood of a new DV filing occurring increases by 23% with each point increase in the composite DVLA scale. The base rate (using all the data/cases) for a new DV filing was 14.3%. This means that for each point increase in the DVLA composite score, a 23% increase from the base rate will be realized (meaning 23% *of 14%*). Specifically, this means that for each point increase in the DVLA composite score, the likelihood of a new DV filing occurring will increase by 23% of 14%, or, approximately 3.3%.

Objective #3: Testing each of the individual items for their relationship with outcome

The version of the DVLA currently in use via Johnson County has 17 score-able questions/items, which are each scored in a "yes/no" format as noted above. If any of the first three questions are answered "yes", the officer is instructed to follow a referral protocol. In addition, if a prevalence of subsequent questions (questions 4 through 17) are answered with "yes", a referral protocol should be followed as well. What follows is an item-by-item analysis testing the relationship between each question and each of the two outcomes (any new filing, and any new DV filing).

Table 5 presents the analyses designed to test the relationship between each of the 17 questions and any new filing. The percentage of cases with a new filing (any charge) is presented for each response contingency (yes/no) for each question (Q1 through Q17). In addition chi-square analysis was used as the test statistic given the categorical nature of both variables. Statistical significance is indicated, as well as the exact p-value in instances where statistical significance was not achieved. In sum, 10 of the 17 items revealed a statistically significant relationship between the item and any new filing. Further, the percentages of those cases with a new filing were in the expected direction – meaning answering in the affirmative was associated with a statistically significant and higher percentage of cases that received a new filing. Seven of the 17 items/questions did not reveal a statistically significant relationship with any new filing. Those questions included Q4 – having access to guns; Q6 – violent or constant jealousy; Q7 – having ever attempted to leave the suspect; Q8 – whether the suspect is unemployed or not; Q13 – whether or not the victim reports being pregnant; Q14 – whether the suspect has destroyed the victim's property or not; Q16 – whether the suspect has ever forced sex/sexual acts on the victim. Three of these seven questions *approached* statistical

significance, and as such should likely be retained and re-analyzed at a later time with new data. These items include Q7 – having ever attempted to leave the suspect; Q14 – whether the suspect has destroyed the victim's property or not; Q16 – whether the suspect has ever forced sex/sexual acts on the victim.

Table 5. Testing the relationship between each of the DV Lethality items and any new filing

Item & response	% any new filing	Statistic	Sig.
Q1 – used weapon against you			
No	20%	chi^2=8.824**	p<.01
Yes	40%		
Q2 – every threatened to kill			
No	17%	chi^2=17.052***	p<.001
Yes	41%		
Q3 – think might try to kill you			
No	18%	chi^2=12.284***	p<.001
Yes	38%		
Q4 – have access to guns			
No	23%	chi^2=.066 (n.s.)	p=.797
Yes	22%		
Q5 – ever strangled/tried to strangle			
No	17%	chi^2=10.347**	p<.01
Yes	34%		
Q6 – violently/constantly jealous			
No	20%	chi^2=1.225 (n.s.)	p=.268
Yes	25%		
Q7 – you ever attempted to leave			
No	16%	chi^2=3.265 (n.s.)	p=.071
Yes	26%		
Q8 – he/she unemployed			
No	20%	chi^2=2.108 (n.s.)	p=.147
Yes	28%		

Table 5 (cont.). Testing the relationship between each of the DV Lethality items x any new filing

Item & response	% any new filing	Statistic	Sig.
Q9 – he/she ever threatened to kill self			
No	17%	chi^2=8.905**	p<.01
Yes	33%		
Q10 – follow, spy, leave threat. notes…			
No	14%	chi^2=21.645***	p<.001
Yes	39%		
Q11 – he/she have drug/alcohol problem			
No	15%	chi^2=9.823**	p<.01
Yes	31%		
Q12 – violence increased in severity			
No	16%	chi^2=10.040**	p<.01
Yes	32%		
Q13 – are you pregnant			
No	23%	chi^2=0.000 (n.s.)	p=.994
Yes	23%		
Q14 – he/she ever destroyed your property			
No	18%	chi^2=3.185 (n.s.)	p=.074
Yes	27%		
Q15 – he/she ever abused an animal			
No	21%	chi^2=8.107**	p<.01
Yes	50%		
Q16 – ever forced sex/sexual acts			
No	21%	chi^2=2.728 (n.s.)	p=.099
Yes	36%		
Q17 – he/she ever been arrested for DV			
No	18%	chi^2=10.830**	p<.01
Yes	36%		

In addition to approaching statistical significance these three items also revealed somewhat substantial differences in the percentages of cases with any new filing (and the percentages were in the expected direction, 'favoring' affirmative responses). The remaining four items that

were non-significant and/or did not approach statistical significance should perhaps be retained and re-examined using new data in the future (see recommendations, below). Based on the current analyses those four items were not predictive of any new filing.

Table 6 presents the analyses designed to test the relationship between each of the 17 questions and any new DV filing. The percentage of cases with a new filing (any DV charge) is presented for each response contingency (yes/no) for each question (Q1 through Q17). In addition chi-square analysis was used as the test statistic given the categorical nature of both variables.

Table 6. Testing the relationship between each of the DV Lethality items and any new DV filing

Item & response	% any new filing	Statistic	Sig.
Q1 – used weapon against you			
No	12%	chi^2=2.588 (n.s.)	p=.108
Yes	21%		
Q2 – every threatened to kill			
No	9%	chi^2=17.749***	p<.001
Yes	29%		
Q3 – think might try to kill you			
No	9%	chi^2=12.774***	p<.001
Yes	26%		
Q4 – have access to guns			
No	12%	chi^2=.674 (n.s.)	p=.412
Yes	16%		
Q5 – ever strangled/tried to strangle			
No	11%	chi^2=3.198 (n.s.)	p=.074
Yes	19%		
Q6 – violently/constantly jealous			
No	11%	chi^2=.852 (n.s.)	p=.356
Yes	15%		
Q7 – you ever attempted to leave			
No	9%	chi^2=2.114 (n.s.)	p=.146
Yes	16%		

Table 6 (cont.). Testing the relationship between each of the DV Lethality items x any DV filing

Item & response	% any new filing	Statistic	Sig.
Q8 – he/she unemployed			
No	12%	chi^2=1.190 (n.s.)	p=.257
Yes	17%		
Q9 – he/she ever threatened to kill self			
No	12%	chi^2=1.073 (n.s.)	p=.300
Yes	16%		
Q10 – follow, spy, leave threat. notes…			
No	7%	chi^2=20.076***	p<.001
Yes	26%		
Q11 – he/she have drug/alcohol problem			
No	8%	chi^2=7.230**	p<.01
Yes	20%		
Q12 – violence increased in severity			
No	10%	chi^2=2.944 (n.s.)	p=.086
Yes	18%		
Q13 – are you pregnant			
No	14%	chi^2=1.671 (n.s.)	p=.196
Yes	4%		
Q14 – he/she ever destroyed your property			
No	9%	chi^2=3.421 (n.s.)	p=.064
Yes	17%		
Q15 – he/she ever abused an animal			
No	12%	chi^2=6.385*	p<.05
Yes	33%		
Q16 – ever forced sex/sexual acts			
No	13%	chi^2=.959 (n.s.)	p=.328
Yes	20%		
Q17 – he/she ever been arrested for DV			
No	10%	chi^2=9.943**	p<.01
Yes	24%		

Statistical significance is indicated, as well as the exact p-value in instances where statistical significance was not achieved. In sum, six of the 17 items achieved some level of statistical significance. In addition the percentages of cases receiving a new DV filing were in the expected (affirmative) direction for the statistically significant items, similar to the dynamic that was found for the analyses involving any new filing. Eleven of the 17 items did not reveal a statistically significant relationship with new DV filing. The non-statistically significant items include Q1 – used a weapon against victim; Q4 – suspect has access to guns; Q5 – suspect ever strangled/tried to strangle; Q6 – suspect is violent/constantly jealous; Q7 – victim ever attempted to leave; Q8 – suspect unemployed; Q9 – suspect ever threatened to kill self; Q12 – has violence increased recently in severity; Q13 – is victim pregnant; Q14 – has suspect destroyed victim's property; Q16 – suspect ever forced sex/sexual acts on victim. Four of these 11 non-significant items did *approach* statistical significance, and also revealed substantial differences in the percentage of cases receiving a new DV filing (percentages that were in the expected direction, 'favoring' the affirmative). As such, these non-significant items warrant further attention, and consideration in future tests of the DV Lethality assessment using new sample(s). The items that approached statistical significance included Q1 – suspect using weapon against victim; Q5 – suspect ever strangled/attempted to strangle; Q12 – has violence increased recently in severity; Q14 – suspect ever destroyed victim's property. The other items that did not approach statistical significance should be considered in future samples as well, given that the affirmative tended to 'favor' receiving a new DV filing, with the exception of the victim reporting being pregnant.

Objective #4: Testing the reliability of the 17 point scale

Multi-item linear scales are often tested using Cronbach's Alpha – a statistic that reveals the extent to which items contained in the same scale are assessing similar constructs. For linear scales (including risk scales such as the DVLA) values of .600 or higher are generally desired, indicative of a reliable scale. In addition to providing the summative alpha value/level, Cronbach's Alpha analysis also calculates what the alpha-level would be, if a particular item were deleted allowing the user to determine whether or not the reliability of the scale could be increased if any of the items were deleted. Using all 17 items, an alpha level of 0.787 was revealed, well above the .600 threshold that is considered "acceptable". As such, as a scale, all 17 items appear to be assessing a similar construct and all belong in the scale. Further, the Cronbach's Alpha analyses reveal that two items could be deleted, which would result in an equal or higher reliability value. Specifically, if the analyses were re-run without Q8 – is suspect unemployed, the alpha level would increase to .802. In addition, while the alpha level would not increase, it would remain exactly the same (.787) if Q13 – whether or not victim reports being pregnant were eliminated from the scale. In terms of internal consistency, these analyses do not reveal a need to modify the scale via the deletion of one or more items.

Objective #5: Developing cutoff scores using the DVLA

Natural groupings (placing approximately one-third of the sample in each of three categories that were labeled "low", "medium" and "high") were utilized in Research Objective #1 in a descriptive fashion. The primary reason for the development of cutoff scores is so agencies can meaningfully and reliably separate suspects/defendants into levels of risk and respond accordingly via supervision, and/or requirements related to justice processing, depending on the stage at which the case is, in the Criminal Justice system. Table 7 presents

the rates of any new filing and new DV filing for each of the natural "one-third" groupings, and presents tests of the significance of the relationship between the categorizations and each outcome. When examining rates of new filing (any), a clear "low risk" category is defined by scores of 0 to 3 points, who as a group had a new filing rate of 4.3%. A clear "medium risk" category is defined as well, spanning the category of 4 to 6 points, with a new filing rate of 30.8%. Further, while the "high risk" (7 points and higher) cases are identified as well with a new case filing rate of 33.3%, this 'one-third of the cases per group' cutoff scoring method does not create a meaningful amount of separation between "medium" and "high" risk situations despite the chi-square value between the categorizations and new filings being statistically significant.

The same cut-off scoring process (leaving an approximate third of the cases in each categorization) is displayed in Table 7 for any new DV filing as well. A somewhat more useful

Table 7. Percentage of cases with any new filing and new DV filing by one-third categories

Category	% any new filing***+	% new DV filing***++
Low (0-3 pts.)	4.3%	2.2%
Medium (4-6 pts.)	30.8%	16.7%
High (7-14 pts.)	33.3%	21.6%

***indicates chi-square value statistically significant at p < .001.
+ chi-square value = 27.045
++ chi-square value = 16.355

Table 8. Percentage of cases with any new filing and new DV filing – increasing medium range

Category	% any new filing***+	% new DV filing***++
Low (0-3 pts.)	4.3%	2.2%
Medium (4-7 pts.)	27.5%	14.7%
High (8 to 14 pts.)	38.5%	25.6%

***indicates chi-square value statistically significant at p < .001.
+ chi-square value = 29.925
++ chi-square value = 19.949

Table 9. Percentage of cases with any new filing and new DV filing – shifting "low" and "med."

Category	% any new filing***+	% new DV filing***++
Low (0-4 pts.)	8.1%	4.5%
Medium (5 to 8 pts.)	28.2%	15.5%
High (9 to 14 pts.)	41.4%	27.6%

***indicates chi-square value statistically significant at p < .001.
+ chi-square value = 26.670; ++ chi-square value = 17.795

result is observed, with a clear "low risk" (0 to 3 points) group identified who had a rate of new DV filing of 2.2%. The "medium risk" cases are also identified via the risk categorization of 4 to 6 points and had a new DV filing rate of 16.7%. In addition the "high risk" cases were also identified slightly more definitively (relative to the "medium risk" cases), with a point categorization of 7 to 14, and a new DV filing rate of 21.6%.

Two additional cutoff scoring schedules were developed as well, in order to help identify the best way to categorize cases into "low", "medium" and "high" likelihood of coming (again) to the attention of the Criminal Justice system. Table 8 presents the rates of new case filing (any) and new DV case filing with a slightly widened "medium" range of scores. Specifically, after close inspection of the data it appeared worthwhile to shift the lowest point from what was previously the "high" range (a score of 7 points) and make that score part of the medium range to see how the percentages of the outcome events (case filings) shifted. When examining any new case filing the rates for low risk cases stayed the same (which makes sense since the range of scores remained the same – 0 to 3 points). However, moving a score of "7" to the moderate range of scores proved beneficial in deflating the rate of any new case filing for the moderate risk cases (now marked by 4 to 7 points on the DV Lethality assessment with a new case filing rate of 27.5%), while inflating the rate of any new case filing for the high risk cases (which are now marked by 8 to 14 points on the DV Lethality assessment with a new case

filing rate of 38.5%). In sum, the three categorizations – low, medium, and high – became more distinct in the expected manner regarding any new case filings by moving a score of "7" from the high risk group to the medium risk group. A similar dynamic was observed when examining this new cutoff scoring schedule for any new DV filing. Again the low risk cases (0 to 3 points) remain unchanged (2.2%) while the medium risk cases (now 4 to 7 points) had a slightly deflated risk of failure, compared to the previous scoring schedule (now the rate of any new DV filing was 14.7% for medium-risk cases), and the high risk cases (now 8 to 14 points) had an inflated risk of failure compared to the previous scoring schedule, at 25.6%. As before (and as expected) the relationships between this new scoring schedule and both outcome variables were statistically significant.

Table 9 presents the results for a third scoring schedule, where both the low and medium score bands were increased in size. In Table 9 low risk cases included cases that scored 0 to 4 points (i.e., a score of "4" was moved from medium to low), medium risk cases included cases that scored 5 to 8 points (moving a score of "8" from high to medium), while high risk cases were considered those that scored 9 to 14 points. This latest scoring schedule appears to yield the best results in terms of differentiating the three bands of risk. Specifically, when examining rates of any new case filing, low risk cases were still quite low at 8.1%, moderate risk cases were inflated just slightly from the previous analyses at 28.2%, while high risk had an inflated rate (again) at 41.4%. When examining rates of any new DV case filing, an increase in the rate for low risk cases is observed compared to the previous two cutoff schedules (4.5%), while both moderate risk cases and high risk cases were inflated accordingly (15.5% and 27.6% respectively). Again the three bands of risk are distinct regarding both outcomes, and the chi-

square analyses were statistically significant indicating a relationship between this scoring schedule and each outcome of interest.

Objective #6: Testing the relationship between the DV Lethality score and DVSIR

The DVSIR is a procedure that involves gathering information about the suspect in a domestic violence incident, whereas the DVLA depends on information from the victim. Ideally, in cases where both a DVSIR and DVLA are conducted, both instruments should indicate similar levels of risk. The available data only includes the categorization that is dictated by the DVSIR (low, medium, high and very high, although due to a low number of cases in the "high" and "very high" categories, these two categories were combined into one category called "high") as opposed to the raw score. In order to test the relationship between these two tools, two analyses were conducted. First, the Pearson's r correlation was calculated testing the relationship between the DVSIR categorization and the DV Lethality score (despite the categorical nature of the DVSIR information). This analysis revealed a statistically significant correlation of .443, which indicates the instruments agree. In addition, Table 10 presents an analysis of variance, using the DVSIR categories as the defining factor, and the DVLA score as the dependent variable. According to the results in Table 10, the DVLA scores differ significantly between categories of DVSIR, providing further support for the fact that the two scales are assessing risk in a similar fashion. Specifically, cases that were assessed as "low" risk via the DVSIR had an average DVLA of 4.17 points, cases that were assessed as "medium" risk via the DVSIR had an average DVLA of 5.91 points, while cases that were assessed as "high/very high" risk via the DVSIR had an average DVLA score of 8.92 points.

Table 10. Examining the relationship btw. DVSIR categorization and average DV Lethal. Score

DVSIR Cat.	Avg. DV Lethality score
Low	4.17 pts.
Medium	5.91 pts.
High	8.92 pts.

$F = 24.984$; $p < .001$.
Pearson's r between the two scale = .443; $p < .001$.

Summary points

The report above represents an initial examination into the description and predictive validity of the DVLA, an assessment designed to use information from victims of domestic violence in order to determine the level or risk of new incidents – particularly domestic violence incidents – occurring. The following summary points are based on the results presented above.

- Based on the 272 cases utilized for the current analyses, the DVLA scores offer enough variation to conduct further investigation into predictive validity and development of cut-off scoring.
- The DVLA in its current formulation and structure does possess predictive validity. Both the Pearson's r values, as well as the AUC-ROC values confirm this predictive validity for both outcomes at issue – any new filing, and new DV filing.
- While the composite DVLA scale does possess predictive validity, the item-by-item analyses revealed that some of the individual items are not related to outcome in their current form. This issue may be addressed by future research (see below for recommendations).
- The DVLA as a composite scale also possesses statistical reliability in its current formulation and structure as evidenced by the Cronbach's Alpha analyses presented

above. All results in this regard were well above what is considered "adequate" when compared to extant research in similar areas.

- The analyses allowed for an investigation of cutoff scoring schedules, that logically and validly divided the cases into three "risk categories" (low, medium, high). Decision making and policy can be developed accordingly regarding agency response to these cutoff scores.
- The DVLA and the DVSIR appear to "agree" statistically speaking, regarding the extent to which risk is measured. Increases in DVLA score are associated with increases in the level of risk as assessed via the DVSIR. Incidentally, analyses also revealed that the DVSIR categorization is significantly related to outcome in the expected directions as well (analyses not included in the current report as they were beyond the current scope of inquiry).

Recommendations

Based on the current results, the DVLA can continue to be used in order to assist with the processing of domestic violence incidents. While the DVLA composite score possesses acceptable levels of predictive validity, analyses also revealed some potential for improvements that may be further investigated. In response to the analyses presented above and the potential for future research the following recommendations are put forth:

- It is recommended that validation work continues on the DVLA in its current structure and composition. Periodic tests of predictive validity are recommended for any actuarial instrument (e.g., every 2 to 5 years depending on the circumstances); however, this is particularly important when an instrument has never been validated previously.

As such, plans for additional validation work are recommended, if possible in the near future.

- Relatedly, additional cases/data would allow for a stronger and potentially more thorough examination of the DVLA. While the current data allowed for all the current analyses without any outstanding concerns regarding statistical estimate stability, more cases would be beneficial for future analyses.
- Additional analyses using the current data that further examines the statistically significant items *only* is recommended as well. It is possible that the predictive validity of the scale could be enhanced if some of the non-significant items are eliminated from consideration as long as variation in the composite score is not compromised.
- Similarly, additional analyses could be conducted regarding the weighting of some items. As it currently stands each of the 17 items (regardless of statistical significance) are weighted the same (1 point each) and contribute equally to the composite score. Predictive validity could be enhanced if some of the items that were both statistically significant *and* particularly substantial in differentiating rates of new case filings and/or new DV case filings were given more weight.
- Several of the questions on the DVLA suffer from what is methodologically considered a "double-barreled" weakness. For example, Q7 asks "Have you ever attempted to leave him/her? Are you currently separated?" Ideally this question would be broken into two different questions since they assess different constructs. Likewise, (and for example) Q12 asks "Has the physical violence increased in severity or frequency?" would be broken into two questions as well, since these two constructs (severity and frequency) are not necessarily exclusive of one another, but could be. The current iteration of the

DVLA contains many examples of these "double-barreled" questions. If the tool is modified accordingly at some point in the future, tests of validity similar to what has been presented above should be conducted in order to test the (what would be new) composite scale's validity as well as the item-by-item validity as well.

- It is recommended that at the current time the third set of cutoff scores be used/observed (see Table 9) and that policy and decision making procedures are developed accordingly.

Conclusion

The DVLA possesses predictive validity and can be used as is (see cutoff score recommendations, above), until future research reveals any potential needs for changing the instrument in some substantial and/or meaningful way. In addition, plans should be made to continue tests of predictive validity as noted above using new sets of data with the same outcomes as assessed in the current analyses.

APPENDIX

DVLA Statistically Significant with new DV case filing	DVLA Approach Stat. Sign. With new DV case filing	DVLA Statistically Significant any new case filing	DVLA Approach Stat. Sign. any new case filing		
				The 17 scored questions on the **DVLA** are as follows:	The 11 scored questions on the (Maryland) **Domestic Violence Lethality Screen for First Responders:**
	X	XX		1. Has he/she ever used a weapon against you or threatened you with a weapon?	1. same
XX		XX		2. Has he/she ever threatened to kill you or your children?	2. same
XX		XX		3. Do you think he/she might try to kill you?	3. same
				4. Does he/she own or have access to guns?	4. Does he/she have a gun or can he/she get one easily
	X	XX		5. Has he/she ever strangled or tried to strangle you?	5. Has he/she ever tried to choke you?
				6. Is he/she violently or constantly jealous or does he/she control most of your daily activities?	6. same
			X	7. Have you ever attempted to leave him/her? Are you currently separated?	7. Have you left him/her or separated after living together or being married?
				8. Is he/she unemployed?	8. same
		XX		9. Has he/she ever threatened to kill himself/herself?	9. Has he/she ever tried to kill him/herself?
XX		XX		10. Does he/she follow or spy on you, leave you threatening notes or messages on answering machines or call you after you have told him/her to stop?	10. Do you have a child that he/she knows is not his/hers? (Not included on DVLA) 11. (similar to DVLA # 10) Does he/she follow or spy on you or leave threatening messages?
XX		XX		11. Does he/she have a drug or alcohol problem?	Not included: substance abuse
	X	XX		12. Has the physical violence increased in severity or frequency?	Not included: increase of violence

				13. Are you pregnant? If not, has he ever hit you while you were pregnant?	Not included: pregnancy
	X		X	14. Has he/she ever destroyed your property?	Not included: property destroyed
XX		XX		15. Has he/she ever abused an animal?	Not included: animal abuse
			X	16. Has he/she ever made you have sex with him/her or perform sexual acts on him/her when you did not want to?	Not included: forced sex
XX		XX		17. Has he/she ever been arrested for domestic violence?	Not included: other dv arrest

DVLA includes yes/no response for each question above, and at the bottom an option for the officer to check box indicating victim refused to answer any questions.

Maryland screen includes yes/no response and "not answered" for each question.

Both assessments include an automatic trigger to protocol referral if victim answers yes to any of the first three questions.

DVLA questions 4,6,8,13 are not statistically significant, nor do they approach significance, for new case filings.

For more information:

Johnson County District Attorney Victim Assistance Unit - http://da.jocogov.org/victim-assistance

Kansas Attorney General's Office, Batterer Intervention Program: https://ag.ks.gov/victim-services/bip

SAFEHOME – www.SafeHome-KS.org

United Community Services of Johnson County – www.ucsjoco.org