

Position Paper: Effectiveness of the Lethality Assessment Program

Introduction and Position

It is the position of the Maryland Network Against Domestic Violence that the Lethality Assessment Program–Maryland Model (LAP), a risk assessment and intervention tool pioneered by the MNADV and research partner Dr. Jacquelyn Campbell, is sufficiently evidence informed and empirically validated to warrant its continued use as an effective and necessary component of homicide prevention.

History of the LAP

Understanding that Intimate Partner Homicide (IPH) is often preventable, the Maryland Network Against Domestic Violence (MNADV) promotes public health solutions that encourage better screening, identification, and service provision to those most at risk.

Partnering with Dr. Jacquelyn Campbell's of Johns Hopkins University, the MNADV led an extensive and comprehensive multi-disciplinary research and development project to adapt the Danger Assessment (DA), an empirically developed risk assessment tool, into a screening and service provision protocol for first responders to incorporate in violence prevention.¹ Through these efforts, the lethality screen and protocol were created and implemented in 2005.ⁱ

The Lethality Assessment Program–Maryland Model (LAP) is an innovative, multi-pronged strategy to prevent domestic violence homicides. Law enforcement officers and other community professionals trained in the LAP use the evidence-based lethality assessment instrument to easily and effectively identify victims of intimate partner violence who are in highest risk of being killed or seriously injured by their intimate partners. Once a High-Danger victim has been identified, the first responder immediately connects the victim via a hotline call to the local domestic violence service program (DVSP) for emergency safety planning and enhanced service provision.ⁱⁱ This warm handoff to a service provider in the immediate aftermath of the event distinguishes the LAP from other homicide prevention models and is a key to its effectiveness.ⁱⁱⁱ

Before the LAP, the need for quality risk assessment tools was clear. Research at the time showed that for 28-33% of victims, the homicidal incident was the first act of

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violence.^{iv} This demonstrates that when assessing homicide risk, first responders must be prepared to identify non-physical risk factors for abuse escalation.

Research also showed a startling trend of missed opportunities for intervention: a 2001 study of previous femicides in 11 US cities found that more than 44% of abusers were arrested, and almost one-third of victims had contacted the police, in the year preceding the homicide.^v Meanwhile, only 4% of those experiencing partner abuse had used a domestic violence hotline or shelter within the year prior to being killed by their partner.^{vi} This evidence demonstrated that most people at risk of IPH were coming into contact with police rather than self-initiating contact with a service provider.

The LAP created a new mode of intervention: meet victims where they are—in front of law enforcement—but do not leave them there. By connecting victims to sustainable safety planning resources and assistance, the LAP closes the gap between victims and the services they need.

Now, nearly 20 years later, the LAP has a body of research behind it which speaks to the effectiveness and value of this model. The Lethality Assessment, honored as a “promising practice” by the U.S. Department of Justice, is evidence informed and empirically validated.^{vii}

Evidence Supporting the Danger Assessment

Since the LAP is an adapted field instrument version of the Danger Assessment, the evidence behind the DA is a key contributor to confidence in the LAP’s efficacy.

The DA was developed based on empirical research that discovered the correlation between the risk assessment categories featured in the DA and IPH. Between 1994 and 2000, Dr. Jacquelyn Campbell and colleagues reviewed hundreds of cases of women who had been killed by their intimate partners in 11 cities (some rural, some urban) across the U.S. The cases included in the study were diverse in terms of race/ethnicity, socioeconomic status, and age of the victim.^{viii} Simultaneously, researchers conducted a qualitative study of women who had been nearly killed by their intimate partners. These first-hand accounts of homicide attempts, and the various relationship and circumstantial characteristics that led up to the homicide, substantiated the findings of the quantitative case review study.^{ix} The 11 questions on the Lethality Screen represent the factors found in these studies to be the most predictive of homicide in relationships with intimate partner violence/abuse.

Not only was the DA developed empirically, but its validity has been proven as well. A 2008 study covering 11 cities used multivariate analysis to test the predictive validity of the risk factors on the DA; 310 IPH cases were compared to 324 abused victims (controls) in the same cities. The results of this were used to revise the DA and then

the levels of risk were tested with a new, independent sample of 194 attempted IPH cases. The DA accurately predicted 90% of these high-risk cases.^x

The Danger Assessment was also validity tested against and compared to other measures. A 2005 multisite field test assessed the predictive accuracy the Domestic Violence Screening Instrument (DVSI), the Kingston Screening Instrument for Domestic Violence (K-SID), the Danger Assessment, and the Threat Assessment Method (DV-MOSAIC) and concluded that “by most analytical strategies, the Danger Assessment had the strongest psychometric properties, including the predictive statistics.”^{xi}

A systematic review in 2013 outlined the above evidence for the effectiveness of the DA as well as research documenting that just one standard deviation change in a women’s DA score corresponds with an approximate fourfold (4.18) greater likelihood of re-abuse^{xii}, that compared to four other approaches, the DA most accurately predicted repeat re-abuse over 15 months^{xiii}, that the adapted DA used in women’s same sex relationships is valid,^{xiv} and that the DA does seem to increase women’s awareness of their own risk.^{xv} Overall, this review of the literature concluded that “a consideration of the predictive accuracy of the DA is generally positive, demonstrating that attempted femicide victims receive higher scores than other victims of IPV, and the measure often results in substantial odds ratios.”^{xvi}

The categories of risk empirically developed for the DA were also found to be accurate predictors of IPH in a 2018 meta-analysis examining results from 17 studies (including 148 effect sizes). The authors found that owning a gun, separation, threatening to harm the victim, unemployment, having a child from a previous relationship, perpetration of forced sex/rape, nonfatal strangulation, perpetrator substance use, controlling behaviors, jealousy, the perpetrator abusing the victim while she is pregnant, and stalking were all statistically significant risk factors for male-perpetrated IPH.^{xvii}

Further, a 2019 meta-analysis of the predictive validity of numerous partner violence screening tool found that “the predictive accuracy of currently available screening tools (tools assessing the onset of domestic violence) is sufficient to justify their use in assessing risks for domestic violence in both high risk and general populations.”^{xviii} The authors then noted the DA should be considered as one of six best practice models, because it has consistently demonstrated at least moderate predictive accuracy and has been validated in at least two studies.^{xix}

Finally, the DA has been proven effective even beyond its intended purpose. In 2013, the DA item “prior threats to harm children” was found to predict whether an intimate partner would kill or attempt to kill a child in the home, while in over 80% of the child homicide cases tested, the primary victim had separated from the perpetrator within the prior year.^{xx} Because the LAP combines the question pertaining to threats against

children with an item pertaining to threats against the intimate partner (“has he/she threatened to kill you or your children?”) in order to facilitate a quick and efficient screening during an active domestic violence call, it is unlikely that research examining the LAP could prove the same relationship (there would be no way to separate those responding to threats against them from those responding to threats against their children). However, this information is valuable to consider when examining the family of LAP tools and their extensive efficacy in facilitating intervention prior to homicide. The LAP is meant to ensure those most in need of services receive them, and the risks to children who grow up in abusive households is extensive.^{xxi} This evidence that the DA can help protect children as well as adults supports the value of the LAP asking about threats and separation, for both parents and children.

Evidence Supporting the LAP

While the evidence supporting the Danger Assessment is substantial, adapting any instrument’s setting, application, and purpose can produce unintended consequences for validity. As such, numerous studies have also evaluated the LAP itself for validity and effectiveness.

First, to get a baseline understanding of whether the LAP would work in practice (albeit not as rigorous an understanding as a peer reviewed study could provide), when the LAP was first developed, a member of the development committee retroactively assessed hundreds of homicide or near-homicide victims using the Lethality Screen. At that time, about 87-92% of homicide or near-homicide victims would have been assessed as High-Danger.^{xxii} This suggests that the LAP is similar enough to the danger assessment to have similar validity results using this metric.

That analysis is also supported by Maryland homicide statistics. Between 2008 and 2013, Maryland saw a 32% drop in domestic violence-related deaths. While this effect cannot be directly attributed to the LAP, increasing participation in the LAP certainly contributed.^{xxiii}

Ultimately though, the best evidence for the effectiveness of the LAP was published 2014. Dr. Campbell, along with researchers from the University of Oklahoma and Arizona State University, conducted a landmark quasi-experimental validation study of the LAP to determine the ability of the Screen to predict severe violence as well as the outcomes of victims’ participation in the LAP. It is well-known that experimental research is the gold standard; but, given that it is impossible to assign ethically and randomly those at risk of homicide to a “no treatment” clinical group, the best research design possible in this case is quasi-experimental (meaning there is both an experimental and control group, but they are not randomly assigned).^{xxiv}

The intervention group of 347 survivors (who were screened as high danger during their LAP intervention) was recruited by police officers at domestic violence incident scenes in 7 Oklahoma jurisdictions. The non-intervention comparison group of 342 survivors was recruited prior to the intervention (based on telephone interviews to determine how they would have scored on a LAP). These non-intervention, “high danger” survivors were compared to those “high danger” survivors who actually received the LAP intervention. Follow-up interviews roughly 7 months later were completed with 202 intervention group participants (58.21%) and 212 high violence comparison group participants (61.99%).^{xxv}

The Lethality Screen was found to be highly sensitive, meaning it correctly identified 92-93% of women who experienced near-fatal violence between the baseline interview and follow-up. High sensitivity means the measure rarely produces false negatives, or more simply, it seldom misses high risk cases. This proves the LAP is effective at identifying those most at risk. The LAP was also found to have a high negative predictive value (93-96%), meaning those designated as low risk are actually at low risk for near-lethal and severe violence.^{xxvi}

However, the LAP was not shown to have perfect predictive validity, because a measure with excellent predictive validity must be both highly sensitive and highly specific. The LAP was shown to have low specificity and low positive predictive value (roughly 21% for each). This means that it produces some false positives: some cases are mis-identified as high risk when they actually do not experience lethal or near lethal violence incident in the future.^{xxvii}

Ultimately, however, the LAP was not designed to have perfect predictive validity. It was designed to make sure all people at high risk of being killed by an intimate partner are connected to services because “the costs of screening someone into the intervention who will not experience repeat or severe violence are much lower than the cost of screening someone out who does experience subsequent violence (especially if this violence results in a fatality or near fatality).”^{xxviii} All instruments have tradeoffs, and it is rare for something to be highly sensitive and highly specific. In terms of what the LAP was intended for, this evidence suggests it does it well.

But it also does more. Participants in the LAP experienced less frequent and less severe violence than victims in the comparison group (a significant decrease in the 1996 Conflict Tactics Scale^{xxix}).^{xxx} This is likely due to a key component of the LAP: immediate, on-site connection to a service provider. The access to education and support inherent to this protocol likely contributes to the statistically significant increase in protective actions victims were found to engage in following LAP contact both immediately (e.g., hiding their partner’s weapons, or accessing formal domestic violence services) and at follow-up (e.g., seeking a protection order, or establishing a help code with loved ones) compared to participants in the comparison group. Further, abusive partners of participants in the intervention group were more likely to

“go someplace where they could not see the victim” (e.g., jail). This could indicate that victims assessed through the LAP are more likely to engage the criminal justice system, or that the system sees the partners of High-Danger victims as more dangerous. Finally, participants in the LAP were significantly more satisfied with the police response than those in the comparison group.^{xxxii}

Researchers conclude that the LAP has no negative effects (meaning there were no benefits to being in the comparison group; every protective strategy noted was more common among the experimental group and the experimental group was always less likely to encounter any violence). There are, however, a myriad of demonstrated positive effects to receiving a lethality assessment. Combined with the MNADV data suggesting that 31% of women across multiple states who receive the LAP access services, researchers “feel comfortable recommending the Lethality Assessment Program as collaborative police-social service intervention with an emerging evidence base.”^{xxxiii}

While the LAP cannot officially don the label of “well-established” per the American Psychological Association Division 12 Task Force Guidelines (1993),^{xxxiii} repetitions of this study and future studies utilizing mixed methods will (likely) propel the LAP into that category.

Data from the above study was republished and reaffirmed numerous times in 2015.

^{xxxiv xxxv} The authors also demonstrated in 2016 that the Lethality Screen and the Danger Assessment for Law Enforcement (DA-LE) (both short forms of the Danger Assessment) can be used in conjunction for different purposes. The DA-LE has a higher specificity rating, making it more appropriate for informing offender accountability strategies. The high sensitivity of the Lethality Screen, however, is still preferred when the goal is casting a wide net to find those most in need of education and advocacy services.

Numerous other researchers in the field have also noted the value of using multiple strategies concurrently for different outcomes. Approaches that are offender-centered (meaning abusive partners are screened, categorized, monitored and introduced to community and policing-based interventions to reduce risk to their intimate partners) are currently gaining traction.^{xxxvi} Such strategies could amplify the violence reduction impacts of the LAP, but cannot replace the vital victim-centered nature of the LAP.

As discussed above, without an experiment it can be difficult to prove cause and effect. As such, the central question of whether the LAP reduces intimate partner homicides has not been as rigorously studied as other questions pertaining to its predictive capabilities. However, in 2017, an economics student from Stephen F. Austin State University applied a difference-in-differences model to Maryland’s LAP and homicide data (meaning she took individual homicide level data from the FBI’s

Supplementary Homicide Reports (SHR) from 2000 to 2011 and aggregated them to the agency level to measure the effects of the program) to determine preliminary evidence for the LAP's impact on homicides. By exploiting the variation in the timing of LAP implementation across law enforcement agencies in Maryland, the researcher was able to show that the program reduced female homicide victimization by males by 35-45% following successful implementation of the LAP. A back-of-the-envelope analysis was then conducted, which suggested that the reduction can be best explained as the effect of information and risk awareness sharing through the protocol, which then prompts at-risk victims to take protective actions, and ultimately reduces the number of IPH cases in Maryland.^{xxxvii}

This research is especially compelling considering the number of falsification measures and robustness checks the researcher employed. The researcher showed that the female homicide rates of early and late adopting agencies were comparable and would likely have remained so absent LAP implementation. She also included time-varying factors such as demographic and economic characteristics, policing rates per capita, and adoption of fatality review programs, which all indicated that the timing of adoption of the LAP was not correlated with changes in other factors that could affect homicide rates. Then, as a falsification test, she demonstrated that the program had no effect on overall homicide or male homicide rates, demonstrating a lack of intervening factors impacting homicide in general. Finally, the researcher determined that the effect of the LAP was specifically strong on homicides most correlated with an intimate partner violence motivation: homicides of women between the ages of 18 to 60, committed by men under circumstances other than a robbery. Jurisdictions experienced 42% fewer homicides in this group after the implementation of the LAP.^{xxxviii} Of course, this study would need to be replicated, peer-reviewed, and published to fully affirm these findings; but the unique methodology, substantial supporting streams of evidence, and large percentage reduction still warrants consideration.

Researchers have also identified other unique benefits of the LAP. Analyzing LAP provider perceptions, a 2017 dissertation study found that the LAP guidelines help advocates and law enforcement feel more confident handling high risk scenarios, that law enforcement find the LAP easy to administer, that officers felt the LAP was the key to helping victims more than they could prior to implementing the LAP, and that executives in charge of domestic violence organizations viewed the LAP as an effective program in addressing IPV.^{xxxix}

Further, the Pennsylvania Coalition Against Domestic Violence expressed in their LAP 5 Year Anniversary report that the LAP had educated victims and law enforcement, empowered victims, and substantially improved the collaboration between services provided by law enforcement and domestic violence programs.^{xl}

In both a 2018 and 2019 study examining perceptions among Connecticut based LAP practitioners, most noted that despite the challenges affiliated with successfully implementing and maintaining the LAP, it is worth continuing because it improves relationships between police departments and DV agencies,^{xli} connects victims with services, and improves overall victim safety.^{xlii} Advocates, in particular, emphasized the LAP's necessity in reaching, educating, and serving victims who otherwise would likely never have contacted a service provider.^{xliii}

A 2021 study of Virginia practitioners' perceptions echoes these analyses. Participants shared overwhelmingly positive feedback on the LAP, noting that it has increased victim engagement in justice systems, provided victims with both immediate and long-term help, and educated victims and law enforcement officers.^{xliv} As this body of literature shows, the LAP is positively contributing to efforts to prevent intimate partner homicide. With its unique strategy for connecting victims to knowledge and services, its proven efficacy in locating high risk cases, its demonstrated impact on the protective strategies employed by victims and the incidence and severity of the violence they encounter, and its profound effect on coordinated community response, the LAP does what it is intended to and more.

MNADV Concluding Statement

Ultimately, intimate partner homicide is often preventable, and sometimes predictable. No measure will likely ever demonstrate perfect predictive validity, for numerous reasons. These include that fact that relatively few abusive relationships escalate to homicide, that causality is near impossible to prove, and because people (while more similar than they are different) are still unique individuals being impacted by a variety of factors both internal and external: some of which can be isolated and used in predictive measures, and some of which cannot.

That being said, the LAP is an effective and vital part of overall homicide prevention. It has contributed to improved police training, better coordinated community response, better emergency services, and perhaps most importantly, creates an avenue to raise victims' awareness of and likelihood of using protective strategies. All of these impacts have been uniquely proven to lower homicide risk.^{xlv} Thought of more as a guide, a tool, and as a part of a larger commitment to serving those most at risk (rather than as an actuarial instrument), the LAP has more than proven its value.

It is the position of the Maryland Network Against Domestic Violence that the Lethality Assessment Program–Maryland Model (LAP), is sufficiently evidence informed and empirically validated to warrant its continued use as an effective and necessary component of homicide prevention.

ⁱ <https://www.lethalityassessmentprogram.org/>

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