



College of  
**Policing**

# **Domestic abuse risk factors and risk assessment**

Summary of findings from a Rapid Evidence Assessment

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# Executive Summary

This Rapid Evidence Assessment, based on 16 systematic reviews, aimed to identify risk factors associated with domestic abuse and the effectiveness of tools that predict risk of domestic abuse. The reviews that met the criteria for inclusion mainly focussed on risk factors for *physical violence*, committed by males against females. Although there is limited evidence on factors that *predict* domestic violence, the REA identified a range of factors *associated* with violence. The strongest associations identified were emotional/verbal abuse of the victim and forced sex. The findings suggest, that when assessing risk, officers may need to focus more on the pattern of behaviour within the relationship, than on external factors such as alcohol use. While there is insufficient evidence to recommend one risk assessment tool over another, in terms of its effectiveness in predicting domestic abuse, victims' own assessments of their risk of assault have been found to be as accurate as some predictive tools. Officers should consider carefully the victim's own assessment of risk when undertaking risk assessments.

## Introduction

This paper summarises the findings of a Rapid Evidence Assessment (REA), the aim of which was to identify risk factors associated with domestic abuse and tools that have been empirically evaluated to assess their effectiveness in identifying individuals likely to be at risk of domestic abuse. The REA used a clear protocol to search for, sift and bring together the most relevant research papers.

Overall, 5,468 potentially relevant studies were found to have been published since 1986 in peer-reviewed English language journals. These studies were then sifted using a series of criteria, relating to relevance to the review topic and whether they were empirical (purely theoretical papers or opinion pieces were excluded). A large number of studies were identified as relevant to the review (440), so to make the REA manageable in the time available, it is based only on existing systematic reviews of the evidence that meet the inclusion criteria for relevance and quality. The review does not include single studies.

A total of 16 systematic reviews were identified which met the inclusion criteria for relevance and quality. Of these 16 reviews, 14 focussed on risk factors, and two on risk assessment. This 'review of reviews' is an important step in understanding what evidence exists to identify factors associated with risk of domestic abuse and to determine whether any 'off the shelf' tools for assessing risk in this context have been rigorously tested for their predictive validity (i.e. how well they assess an individual's risk of future harm). A full technical report including details of the search strategy, inclusion criteria and studies covered will be available.

## Background

The College of Policing sets national standards for policing and is currently working to ensure that, as standards are developed and refreshed, evidence of what is known to be effective is systematically reviewed and incorporated into them. Over time this process will ensure that all future recommended practice is based on the best available evidence of 'what works'. Standards related to tackling violence and protecting the public are among the first to be refreshed and allow the College an opportunity to test a more evidence based approach. The research literature related to the assessment of risk for domestic abuse and the assessment of risk has grown in recent years, with over 90% of studies identified by our systematic search published since 2000, and 35% published between 2010 and 2013. The scheduled refresh therefore provides a timely opportunity to ensure that current standards relating to assessing the risk of domestic abuse reflect the best available evidence.

## Defining domestic abuse

This Rapid Evidence Assessment has used the 2013 Home Office definition of domestic violence and abuse<sup>1</sup> to develop inclusion criteria. Domestic violence or abuse is defined as: "Any incident or pattern of incidents of controlling, coercive or threatening behaviour, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality."

The definition includes (but is not limited to) psychological, physical, sexual, financial, and emotional abuse. Practically, this means the REA excludes studies on child abuse, elder abuse of non-family members, and teenage/ adolescent relationships under the age of 16.

## Findings

### Risk factors and correlates of domestic abuse

A total of 14 reviews focussed on risk factors for domestic abuse. Most of the evidence identified in these reviews related to factors *associated* with risk of domestic abuse rather than risk factors – those that *'cause'* abuse (i.e. it precedes the abuse taking place)<sup>2</sup>. It was not possible to establish precedence in the majority of existing reviews because of the research methods used in the studies included. A lack of longitudinal and prospective studies was highlighted as a limitation to identifying precedence in a number of the reviews included in the REA<sup>3</sup>.

In addition, though this review was intended to examine a broad definition of domestic abuse, the literature identified is predominantly focussed on risk factors for and associated with domestic *violence*, rather than domestic abuse (12 out of the 14 studies included in the REA). Other forms of abuse, such as controlling behaviour and emotional or psychological abuse were not examined in the reviews included in this REA, which presents a gap in the findings. The systematic reviews included in the REA were also almost entirely focussed on *male perpetration* and *female victimisation*.

#### *Risk factors for domestic violence*

The only clear risk factors identified by this review of reviews related to violence *during* pregnancy. These factors were:

- Lower educational level (for women);
- 'single' relationship status; and
- whether a pregnancy was unintended/unwanted by the victim or the perpetrator of abuse.<sup>4</sup>

The odds ratios are presented in Table 1 below and suggest that abuse during pregnancy is more likely for women with lower levels of education, who are single, and are having an unintended/unwanted pregnancy; and male perpetration of abuse against a partner who is pregnant is also more likely if a pregnancy is unintended/unwanted.

Although, victim alcohol abuse and lower socioeconomic status were also found to be significant risk factors for violence during pregnancy, there were mixed results from the studies included in the review which makes it unclear whether these factors raise or reduce risk.

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<sup>1</sup> Home Office Circular, 2013.

<sup>2</sup> Kraemer et al, 1997.

<sup>3</sup> Gil-Gonzalez, 2006; Vives-Cases, 2009; Kuijpers, 2011.

<sup>4</sup> James et al, 2013.

**Table 1: Factors associated with intimate partner violence during pregnancy<sup>5</sup>**

<b>Factor</b>	<b>Outcome</b>	<b>Odds Ratio (CI: upper, lower)</b>
Lower educational level	Victimisation	2.56 (1.02, 4.10)
Single (relationship status)	Victimisation	2.27 (1.32, 3.22)
Pregnancy unintended/ unwanted by victim	Victimisation	2.10 (1.49, 2.71)
Pregnancy unintended/ unwanted by perpetrator	Perpetration	2.09 (1.29, 2.89)
Low socioeconomic status	Victimisation	2.11 (0.21-4.02)
Victim alcohol abuse	Victimisation	1.48 (0.48-2.48)
Abuse before pregnancy	Victimisation	Non-significant
Lifetime adversity/ exposure to violence	Victimisation	Non-significant
Perpetrator alcohol abuse	Perpetration	Non-significant

#### *Factors associated with risk of domestic abuse*

Nine reviews conducted a meta-analysis of the findings of studies they included in their research. These meta-analyses examined the associations between a total of 26 different factors and the likelihood of male perpetration of and female victimisation from domestic abuse. These measures of association were translated into commonly accepted ideas of large, moderate and small effects or associations<sup>6</sup>. Most of the factors identified in the REA had only small or small to moderate associations, with only two factors having large association. The findings from the reviews are set out in Table 2 but broadly:

- Large associations were identified between male perpetration of violence and emotional/ verbal abuse and forced sex.
- A moderate-to large association was identified between female violence towards her partner and increased likelihood of her becoming a victim of domestic violence.
- Marital satisfaction had a moderate negative association with both perpetration and victimisation; in other words, high levels of satisfaction within the relationship was associated with a decreased likelihood violence, and vice-versa.
- Female fear of their partner was associated with increased levels of victimisation.
- Alcohol and drug use and abuse by the perpetrator were found to have a small-to-moderate association with violence.
- Overall, factors such as age, education, employment and income were found to have either small or non-significant associations with abuse perpetration and victimisation, suggesting these sorts of variables have limited predictive value.

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<sup>5</sup> James et al, 2013.

<sup>6</sup> Cohen, 1988; Cohen, 1992

**Table 2: Identified factors\* by strength of correlation and sex.**

Strength of association	Male perpetration		Female victimisation	
	N	Factors	N	Factors
Large	2	Emotional/ verbal abuse; forced sex	0	
Moderate-to large	0		2	Violence towards partner; marital satisfaction (-)
Moderate	3	Attitudes condoning violence; traditional sex role ideology; marital satisfaction(-)	0	
Small-to-moderate	6	Alcohol use; drug use; anger/ hostility; career/ life stress; depression; history of partner abuse	2	Depression; Fear
Small	4	Jealousy; age (-); education (-); employment (-)	1	Alcohol use
Negligible*	1	Income (-)	4	Age (-); education (-); income (-); number/ presence of children
Non-significant**	0		1	Employment
Total	16		10	

\*factors reporting  $r$  or  $d$  scores \* $r$ =less than 0.1. \*\*\*statistically insignificant finding.

(-) denotes negative association

### *Non-correlated factors*

Five reviews included in the REA did not conduct a meta-analysis but rather undertook a narrative synthesis which describes the 'balance of evidence' related to identified factors, based on the interpretation of the authors. It is not possible to judge the strength of any potential associations identified using this approach. Table 3 presents the nine factors identified from narrative syntheses; for five of the nine factors there is 'consistent' evidence or 'clear' evidence of an association according to review authors.

**Table 3: Non-correlated factors by 'balance of evidence'\***

Evidence is...	N	Factors
Clear	1	Relationship status*
Consistent	4	Ethnic minority membership, low acculturation <sup>7</sup> , minority stress <sup>8</sup> , violence between parents/ childhood abuse
Suggestive	1	Social support*
Inconclusive	2	Verbal conflict/ male domination*, self-reported high quality of life*
None	1	Community factors

\*Four factors were specific to female victimisation: relationship status; social support; self-reported quality of life; verbal conflict/ male domination. Other factors were presented in review where victimisation/ perpetration focus was unclear/ combined/ conflated.

<sup>7</sup> 'Acculturation' describes the process of adopting the cultural traits or social patterns of another group. 3

<sup>8</sup> 'Minority stress' describes chronically high levels of stress faced by members of stigmatized minority groups (e.g. ethnic and sexual minorities).

## Risk assessment tools

Across the two included reviews on risk assessment, a total of 16 different Domestic Abuse specific tools were identified (see Table 4, below), however the current evidence base for each tool was found to be limited, making general conclusions about the efficacy of existing models problematic.

Risk assessment tools fall into four main categories:

- unstructured professional judgement (assessment based on professional experience and discretion);
- actuarial assessment (assessment based on explicit counting and scoring of recognised risk factors);
- structured professional judgement (professional guidelines combining identification of known risk factors with professional discretion); and
- victim appraisal (victim's perception of their own risk), which can be included as part of the other three approaches, or as a stand-alone approach in itself.

Four 'pilot models' were also identified which either applied various combinations of the approaches described above or provided insufficient information to be categorised.

**Table 4: Risk assessment instruments by type (Nicholls et al)**

Type		Instrument	Initials	Items
Actuarial	1	Ontario Domestic Abuse Risk Assessment	ODARA	13
	2	Domestic Violence Risk Appraisal Guide	DVRAG	33
	3	Domestic Violence Supplementary Report	DVSR	19
	4	Propensity for Abuse Scale	PAS	29
	5	Domestic Violence Screening Inventory	DVSI	12
	6	Domestic Violence Evaluation	DOVE	19
	7	Kingston Screening Instrument for Domestic Violence	KSID	10/11
	8	Partner Abuse Prognostic Scale	PAPS	17
Structured Professional Judgement	9	Spousal Assault Risk Assessment	SARA	20
	10	Brief Spousal Assault Form for the Evaluation of Risk	B-SAFER	10
Victim Appraisal	11	Danger Assessment Scale	DA	20*
	12	Unstructured Victim Appraisals	VA	Various
Pilot models	13	Danger Assessment Scale Brief Assessment for the Emergency Department	DA-ED	13
	14	Structuring Clinical Judgement	SCJ	33
	15	Severe Intimate Partner Risk Prediction Scale	SIVIPAS	19
	16	Los Angeles Sherriff's Department Screening Measure	LA-SM	29

\*There are 20 items in Part 2 of the DA. Part one is a calendar where victims are asked to record instances of abuse over the past year.

Risk assessment models can be evaluated in four main ways – using measures of their reliability, internal consistency, convergent validity, and predictive validity. These four approaches to validation are described below:

- **Reliability:** tests overall consistency of a measure. A measure has high reliability if it produces similar results under consistent conditions e.g. measurements of people's height and weight are often extremely reliable.
- **Internal consistency:** tests whether questions or items that aim to measure the same general construct produce similar scores e.g. in relation to domestic abuse, if a respondent

expressed agreement with the statement "My partner is controlling" and disagreement with the statement "I have access to social support", this may be indicative of good internal consistency of the test.

- Convergent validity: tests how well two different measures correspond in their measurement e.g. in relation to domestic abuse, we can test the convergent validity of different risk assessment models to see if they are measuring similar things.
- Predictive validity: tests how well risk assessment tools predict a set behaviour in a specified time frame, for example predicting re-abuse (of victims) or reoffending (by perpetrators) in a three-month follow up period.

The majority of the evaluations included in the reviews have evaluated the models using measures of predictive validity. While 12 of the 16 identified tools have been assessed for their accuracy in predicting future domestic violence, seven have been assessed just once, with only five assessed in multiple evaluations. A meta-analysis of five risk assessment instruments (and victim assessment, see Table 5) found that all assessment tools perform better than chance, and that there are significant differences in the average predictive validity of risk assessment tools.<sup>9</sup>

**Table 5: Average Predictive Validity (AUC) of IPV Risk Assessments for Re-assault**

	Instrument	Average AUC	95% CI	N of studies	Total sample
1	ODARA	.666	.665-.668	5	1,053
2	SARA	.628	.627-.629	6	2,656
3	DA	.618	.616-.620	4	2,519
4	DVSI	.582	.581-.584	3	2,896
5	KSID	.537	.536-.538	2	1,281
6	Victim Assessment	.615	.614-.616	2	1,281

Table taken from Messing and Thaller, 2012, p1542.

Many of the tools that have been assessed more than once have not been administered consistently making comparative assessment difficult. Overall, this means that drawing conclusions on which risk assessment tools are the most effective at predicting those at risk of domestic abuse is difficult. The best available evidence suggests that of the tools included in the REA the following are the most promising in predicting risk of domestic abuse:

- Ontario Domestic Abuse Risk Assessment (ODARA: actuarial);
- the Spousal Assault Risk Assessment (SARA: SPJ) and
- the Danger Assessment (DA: victim assessment).<sup>10</sup>

#### *Victim assessment*

There is emerging evidence from the included reviews and other studies to suggest victim's assessment of their own level of risk from their partner can improve (or sometimes outperform) other risk assessment instruments.<sup>11</sup> Therefore, it is worth considering the inclusion of an element of victim appraisal in the development of any risk assessment tool.

<sup>9</sup> Messing and Thaller, 2013.

<sup>10</sup> Messing and Thaller, 2013.

<sup>11</sup> Bowen, 2011; Heckert & Gondolf, 2004; Kuijpers et al, 2011; Messing and Thaller, 2013; Weisz et al, 2000

### *Risk assessment in England and Wales*

There is no evidence that risk assessment instruments currently in use in England and Wales (namely DASH and MERIT) have been evaluated in published, peer reviewed journals. No other existing risk assessment instruments were found to have been tested in England and Wales. Limitations with the existing evaluations of models (such as inadequate administration of tools) mean that it would be inadvisable to take any current model 'off the shelf' and apply it without rigorous testing.

## **Conclusions and practical implications**

Although there is limited evidence on risk factors for domestic abuse, i.e. those that predict the abuse, a range of factors that are associated with male perpetration and/or female victimisation of domestic violence have been identified. The strongest associations with violence perpetration were found to be emotional/verbal abuse and forced sex. Although the studies did not define what was considered to be emotional or verbal abuse, the association between these factors and physical violence could lend support to the importance of officers actively seeking evidence of coercive and controlling behaviour when conducting risk assessments. Factors associated with other forms of abuse (e.g. psychological and emotional abuse) are poorly covered by the systematic reviews and meta-analyses included in this REA, meaning there are potential gaps in the coverage of this review.

While there is insufficient evidence to recommend one risk assessment tool over another, in terms of its effectiveness in predicting domestic abuse, there is a strong argument for recommended practice to include a routine question(s) asking victims directly about their perceptions of their own level of risk and fear of assault. Research shows that victims' own assessments of their risk of assault are as accurate as some predictive tools. Officers should consider carefully the victim's own assessment of risk when undertaking risk assessments.

The review of reviews has predominantly identified meta-analyses and systematic reviews focussed on quantitative data identified through population surveys. It is likely that there is a body of qualitative and victim-focussed research which could usefully be reviewed to identify dynamic risk factors (e.g. isolation, financial dependence). These sorts of factors are likely to be an important part of any risk assessment tool.

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