Family Violence Risk Assessment

Review of International Research

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Contents

Tables

Terminology

To accurately reflect the literature, this report uses the terms used by the authors of the research or the findings being discussed. A variety of terms appear in the family violence risk assessment literature, depending on the particular aspect of family violence being studied or assessed for risk.

- Some literature refers to *domestic* violence, some to *family* violence.
- Some studies refer to *intimate partner* violence, some to *spouse* or *spousal* assault, and others to *wife* assault. Some refer to *abuse* rather than *assault*.
- There are studies that refer to the risk of *homicide* whereas others refer to *lethality* or *femicide* (the latter focusing only on women).
- Other studies examine and refer to the risk of *recidivism* or *reassault* when meaning repeat assault or repeat offending.
- Risk assessment *tools* are variously known as *instruments* or *scales* (the latter is more common for those that generate a score).

While it is understood that males and females can both be victims of family violence or intimate personal violence, most of the identified victims of such violence are women, therefore much of the literature deals with violence against women. When women are mentioned in this review it will be because this is what the research specifically refers to. The term used in the literature being referenced or quoted is the term that will be used, otherwise the term 'victim' is used.

Key research terms used in the literature on risk assessment tools, and therefore in this report, include:

Reliability	the *consistency* or *repeatability* of the result produced by a risk assessment tool
• Inter-rater reliability	the degree to which an assessment tool generates the same score, in the same case, when used by different assessors
• Test-retest reliability	the degree to which an assessment tool generates the same score when administered with the same respondents at different points in time
Validity	the *accuracy* or *correctness* of the result produced by the tool
• Construct validity	the extent to which the items in the tool correlate with known and established risk factors
• Criterion validity	how well the results from a risk assessment tool can predict 'criterion' or concrete variables
• Predictive validity/ accuracy	the *accuracy* or *correctness* of the tool in relation to predicting future violence

These terms are discussed more fully in the section on Validating risk assessment tools.

Executive summary

This literature review presents an overview of the international research and best practice literature on family violence risk assessment from over the last decade. It was undertaken for the New Zealand Police to inform any changes they may wish to make to their own family violence risk assessment processes. For that reason it has an emphasis on the literature as it relates to Police organisations, rather than other sectors such as healthcare providers who also have a role in family violence risk assessment.

As the New Zealand Police are particularly interested in reducing serious harm and lethality (homicide) from family violence, the focus of this review was literature related to assessing the risk of reassault likely to cause serious harm or lethality. However, few risk assessment tools have been designed to assess lethality and few studies have attempted to identify risk factors specific to lethality—so, in addition to examining those that do, the review also examines the research on predicting reassault, which is increasingly aiming to predict the severity and frequency of reassault as the science of risk assessment becomes more sophisticated.

This review outlines the approaches and tools used in family violence risk assessment, the most common risk factors for future violence, and what is known about the effectiveness of the different tools at predicting future violence. The review also sets out what the research says about the use of risk assessment in practice, especially by Police, and the implications for effective risk management.

Approaches to family violence risk assessment

There are three basic approaches:

1. Actuarial methods: These calculate a risk score based on combining the weighted ratings of a set of risk factors. Actuarial methods are considered to be more effective and have greater predictive accuracy, and inter-rater reliability than other forms of risk assessment, in predicting future violence and homicide.

2. Structured clinical or professional judgment: This uses a set of guidelines to structure an assessment by a clinician or professional who will also apply their expertise to make a final assessment of risk. There is a lack of consensus in the literature about the efficacy of this approach, and the predictive accuracy is variable, but it can enable the identification of changeable risk factors, unique to each case, which can inform the development of tailored risk management strategies.

3. Unstructured clinical or professional judgment: This is simply professional judgment on its own, which has been widely criticized for its lack of reliability, validity or accountability.

Much of the literature suggests that a risk assessment process ought to include more than one approach—and more than one source of information—but there is another school of thought that the best approach is to use actuarial tools on their own. Some studies suggest that adding professional judgment can actually decrease predictive accuracy.

It is important to note that the levels of predictive accuracy calculated for the validated risk assessment tools in the literature are moderate at best, leaving considerable margins of error. Therefore the adoption of a statistically validated risk assessment tool does not automatically ensure the accurate prediction of future serious or lethal violence.

Risk factors for future serious or lethal family violence

The lists of risk factors provided in the literature are often similar for lethal and non-lethal family violence. Few studies have attempted to identify those which are particularly predictive of lethality. However, Campbell et al (2003) identified the presence of the following factors as significantly increasing the risk of lethality—in order of importance—threats with a weapon, threats to kill, attempts to choke or strangle, forced sex, presence of a gun, escalating severity and/or frequency of violence over time, extreme jealousy/control, drug and/or alcohol abuse, and abuse during pregnancy. Other factors indicated for lethality include the perpetrator stalking the victim, the victim having a child in the home who is not the biological child of the perpetrator, the victim leaving or being estranged from the perpetrator, and the perpetrator having a mental illness.

Risk factors related to reassault include—a history of assault, the perpetrator being young, the perpetrator being of low socio-economic status, there being a history of marital conflict, there being a history of verbal abuse, and the offender having previously been arrested for violent or other anti-social offences.

Risk assessment tools

The family violence risk assessment literature discusses a variety of risk assessment tools, which have all been developed for slightly different purposes—assessing slightly different forms of violence, and for use with slightly different populations in different settings. Some have been developed for front line healthcare settings, for use with victims, and others have been developed for use with offenders in correctional institutions and require trained clinicians to administer them. This makes comparisons difficult.

The validated tools included in this review all have similar levels of predictive accuracy, although different meta-analyses have produced different results for different tools. There is no one tool that can be identified as 'the best'. Two of the tools reviewed have been developed specifically for use by police, or front line service providers including police: the Ontario Domestic Assault Risk Assessment (ODARA)[1] and the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER)[2]. The ODARA has performed particularly well in validation studies and although not developed specifically to assess lethality, research indicates that high scores on the ODARA indicate a higher risk of serious harm or lethality.

Two of the risk assessment tools included in the family violence risk assessment literature were developed specifically to assess the risk of lethality—the Danger Assessment[3], and the Method of

1 Hilton, Harris, Rice, Lang, Cormier & Lines, 2004, cited in Hilton & Harris, 2007
2 Kropp, Hart & Belfrage, 2005, cited in Kropp, 2008
3 Campbell, 1986, cited Hanson, 2007

Assessment of Domestic Violence Situations or Domestic Violence Method (DV-MOSAIC)[4]. Neither was developed specifically for use by frontline police. A shortened version of the Danger Assessment—the Lethality Assessment Screen for First Responders—has been developed for use by police officers attending domestic violence incidents, and is currently part-way through a validation process.

All of the other tools reviewed were designed to assess the risk of reassault: The Psychopathy checklist (PCL-R)[5] the Violence Risk Appraisal Guide (VRAG)[6] have both been shown to be good predictors of family violence recidivism despite not being developed for that purpose—both should be administered by a psychologist or other trained clinician. The Spousal Assault Risk Assessment Scale (SARA)[7] designed for family violence assessors, the Domestic Violence Risk Appraisal Guide (DVRAG)[8] which includes the PCL-R and is designed for use with offenders in a correctional environment, the Domestic Violence Screening Inventory (DVSI)[9] and the Kingston Screening Instrument for Domestic Violence (K-SID)[10] have all been shown to be moderately good predictors of family violence recidivism.

For any organization wishing to develop, adopt or adapt a risk assessment tool, special attention should be applied to the desired purpose of the tool, taking into account the nature of the target population and the role, skills and experience of the proposed assessors.

Risk assessment by Police

A growing number of police organisations are using formal risk assessment approaches to predict family violence recidivism. Many have chosen to use structured professional judgment, including the Metropolitan Police Service in the UK, the Australian State Police in Tasmania and Victoria, and the Canadian Police. Key findings for police from reviews of these approaches in the literature are:

- The purpose of risk assessment needs to be clear, especially in terms of what is being assessed and how the information will be used.
- Risk assessment needs to be well planned and resourced, and supported with sound procedures and protocols.
- The accuracy of the assessment is influenced by the skills, experience, and training of the assessor. Appropriate training is an essential component of good risk assessment and this includes training in the dynamics of family violence.
- Risk assessment should be accompanied by good communication and information management.
- The construction and use, by police organisations, of shortened versions of risk assessment tools is a concern, as once the tool is changed it no longer retains the validity that was attached to the full version.
- Risk assessment should always be accompanied by good risk management, i.e. victim safety planning, offender intervention, referral to services, monitoring and supervision.

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4 De Becker & Associates, 2000, cited in Roehl, 2005
5 Hare, Clarke, Grann & Thornton, 2000
6 Harris, Rice & Quinsey, 1993
7 Kropp, Hart, Webster & Eaves, 1995
8 Hilton, Harris, Rice, Houghton and Eke, 2008
9 Williams & Houghton, 2004
10 Gelles, 1998, cited in Roehl, O'Sullivan, Webster & Campbell, 2005

Ongoing research

The science of risk assessment is still developing and further research is underway to assess the precise contribution of specific risk factors to the risk of serious harm and lethality, the predictive accuracy of new tools developed for and by police organizations, and to accurately assess the precise nature, frequency or imminence of reassault. The researchers in the field also acknowledge the need for ongoing evaluation and testing of tools with different ethnic groups and in different contexts.

1 Introduction

This review has been undertaken for New Zealand Police. Its purpose is to provide an overview of the international academic research and best practice literature on family violence risk assessment from about the last ten years, in order to inform improvements that the New Zealand Police may wish to make to its own family violence risk assessment processes. The review therefore has a particular focus on the literature as it relates to family violence risk assessment by police organisations.

It also focuses on risk assessment as it relates to predicting the *re*occurrence of family violence, rather than the *initial* occurrence.

Some of the most recent literature describes the science or practice of family violence risk assessment as still being young (Campbell et al, 2009; Kropp, 2004; Roehl et al, 2005), and as receiving relatively little attention in the scientific and professional literature (Kropp, 2008). However, the existing literature is helpful to those wanting to undertake risk assessments, and is continuously improving as researchers undertake further studies and refine their knowledge.

The family violence risk assessment literature can be difficult to navigate, partly because of the terminology used, partly because of the way that risk assessment approaches and tools are categorised, and partly because of the lack of consensus amongst researchers and commentators on some issues.

This review attempts to clarify some of those issues. It includes a small section on the terminology used in the literature. It provides an overview of risk assessment categorised according to the approach used—whether it be an empirical scale or a professional's judgment—and provides an overview of risk assessment tools categorized according to the type of risk they are designed to assess—whether it be future reassault, or future *lethal* assault. It also highlights areas in the literature where there is a lack of consensus.

This report provides an overview of:

- the factors which indicate a risk for future violence or homicide
- different approaches to risk assessment
- examples of risk assessment tools
- issues around the quality and predictive ability of these risk factors and tools, and
- issues around using these tools in practice, particularly for police organisations.

2 Approaches to risk assessment

The different approaches used by a variety of professionals to assess the risk of future assault or homicide can be categorized into three basic types:

- Actuarial methods
- Unstructured clinical or professional judgment
- Structured clinical or professional judgment

2.1 Actuarial methods

Actuarial risk assessment tools calculate a risk score based on combining the ratings of a set of risk factors (Hanson et al, 2007).

The actuarial tools have been developed by:

- identifying risk factors from sources such as police records or self report of victims
- conducting multi-variate analysis on the data to understand the relative contribution of each risk factor to the outcome (lethality or reassault) and applying rating or weightings to them
- using the calculated weights to develop a scoring system and define levels of risk.

The best predictors of reassault or lethality are used for the scale, and additional risk factors are normally only added to the scale if they increase its predictive accuracy (Hilton and Harris, 2007).

Actuarial methods include:

• Danger Assessment (DA)	(Campbell, 2004)
• Domestic Violence Screening Inventory (DVSI)	(Williams and Houghton, 2004, cited in Hanson et al, 2007)
• Ontario Domestic Abuse Risk Assessment (ODARA)	(Hilton et al, 2005)
• Violence Risk Appraisal Guide (VRAG), and	(Quinsey et al, 2006, cited in Hilton and Harris, 2007)
• Domestic Violence Risk Appraisal Guide (DVRAG)	(Hilton, Harris, Rice, Houghton and Eke, in press, cited in Hilton and Harris, 2007)

These are discussed more fully in the section on Risk Assessment Tools.

Actuarial methods provide a "probabilistic estimate of the likelihood of future violence" (Kropp, 2008, p206), and also provide a *relative* likelihood that an individual will commit future violence compared to a norm-based reference group. For example, the Ontario Domestic Abuse Risk Assessment (ODARA) is an actuarial instrument. An individual's ODARA score can be compared to the scores of others on an actuarial table that indicates the rate of wife assault recidivism by other perpetrators with the same

score. These norms, calculated by scoring men known to have reoffended, indicate how men with each score compare with other known wife assaulters with respect to the risk of recidivism—the norms indicate a perpetrator's rank order with respect to risk (Hilton and Harris, 2007).

Actuarial methods are considered to have greater predictive accuracy than other forms of risk assessment, especially unstructured clinical or professional judgment, in predicting future violence and homicide (Aegisdottir et al, 2006; Grove and Meehl 1996; Grove, Zald, Lebow, Snitz, and Nelson, 2000; Hilton, Harris and Rice, 2006; Quinsey et al, 2006; Grann and Wedin 2002; Hilton et al 2004; Hilton, Harris, Rice, Houghton and Eke, in press—all cited in Hilton and Harris, 2007). They tend to have better inter-rater reliability which helps to improve their accuracy (Hilton and Harris, 2007).

Actuarial approaches have been shown to correlate well with various measures of violent behaviour and have good construct validity (Campbell, 1995; Grann & Wedin, 2002; Hanson & Wallace-Capretta, 2000; Hilton et al., 2004; Kropp & Hart, 2000; McFarlane, Campbell, & Watson, 2002; cited in Kropp, 2008).

The actuarial approach improves upon the “poor reliability and validity of unstructured clinical [or professional] assessments” (Grove & Meehl, 1996; Litwack, 2001; Quinsey et al., 1998, cited in Kropp, 2008). The risk score can be used as a "shared language of risk" which may facilitate communication among service agencies (Trone, 1999, cited in Websdale, 2000).

2.2 Unstructured clinical/professional judgment

Unstructured clinical or professional judgment is when no guidance or scale is used to assist in the risk assessment process, and a practitioner uses their experience, intuition and discretion, to make their own assessment about levels of risk.

This is the approach that would have traditionally been used by police, and others, when assessing the likely future dangerousness of a violent individual. Experienced practitioners would use what they would call their common sense or gut instinct.

This approach has, however, been widely criticized for its lack of reliability, validity or accountability (Litwack & Schlesinger, 1999; and Quinsey et al., 1998; cited by Kropp, 2008). It is limited by the level of knowledge, training, experience and skill of the individual assessor. Key risk factors could be missed, particularly by those who have had little training or have little knowledge about family violence. This could result in poor judgments being made, and victims being put at risk. More and more, practitioners in the family violence field are moving away from this approach (Campbell, 1995; Dutton & Kropp, 2000; Hilton & Harris, 2005; cited in Kropp, 2008).

2.3 Structured clinical/professional judgment

In the structured professional judgment approach, as with the actuarial approach, a structured list of risk factors are considered—however, the overall attribution of a level of risk is left to professional judgment (Hanson et al, 2007). This approach is seen as an attempt to bridge the gap between the actuarial approach and the unstructured judgment approach (Douglas & Kropp, 2002; and Hart, 1998; cited in Kropp, 2008).

Kropp (2008) says that the primary goal of the structured professional approach is to prevent violence by managing risk. The perceived advantage of this approach is that it allows the identification of changeable or dynamic risk factors, unique to each case, which can inform the development of tailored risk management strategies. It ensures risk assessment is consistent and transparent, while preserving the discretion of the assessor (Kropp, 2008).

Structured professional judgment methods include:

• Spousal Assault Risk Assessment (SARA)	Kropp, Hart, Webster, & Eaves (1995), cited in Hanson et al (2007)
• Metropolitan Police Service Domestic Violence Risk Assessment Model (SPECSS)	Metropolitan Police Service (2003) Humphreys et al (2005)
• Tasmania Police Risk Assessment Screening Tool (RAST)	Tasmanian Institute of Law Enforcement Studies (2005)

These are discussed more fully in the section on Risk Assessment Tools.

Professional judgment has been shown in various North American studies to have good inter-rater reliability in relation to the presence of risk factors and level of risk, and good criterion validity, correlating with actuarial methods' scores and predicting recidivism (Kropp, 2008). However, the quality of the professional judgment is, of course, dependent on the skills and training of the assessor, as well as the quality of the information available, (Hanson et al, 2007). Hilton and Harris (2007) point out that the judgment tends to depend upon the experience, memory, familiarity with relevant research, and intuition of the assessor.

A review of studies using the Spousal Assault Risk Assessment tool (SARA), which uses a scale and professional judgment, showed that studies where the scale was used on its own showed better accuracy than those where professional judgment was included in the assessment. However the review may not have included enough studies, and the results may have been skewed by the significant difference between the two studies that used SARA to structure professional judgment:

> "Kropp and Hart (2000) found high predictive accuracy ... when the SARA judgments were coded from files by researchers, whereas the predictive accuracy was low ... when the SARA was coded by Swedish police officers in the course of their duties (Kropp, 2003)." (Hanson et al, 2007)

This result has serious implications for Police using risk assessment scales and professional judgment. It suggests that the accuracy of the assessment is influenced by the quality of the judgment applied – which is related to the skills, experience, and training of the assessor. This result also suggests that more accurate risk assessments might be achieved by using a risk scale on its own without applying professional judgment. However, other commentators have concluded that professional judgment ought to be one of the tools used in reaching a final assessment of risk level.

2.4 Actuarial tools and professional discretion

Despite the promise of actuarial methods, practitioners often resist using methods that eliminate their use of professional discretion. Kropp (2008) suggests that they may feel uncomfortable considering only

one “test” of risk while ignoring legal, ethical, and professional requirements to consider all available information from a variety of perspectives.

New Zealand Police, in developing its three risk assessment tools, was mindful of the research that suggests a variety of info sources should be used. Despite this, resistance to using the tools has been observed in the New Zealand Police, particularly among older, more experienced officers (Wilde at al, 2006 and Grant, 2009). There was more resistance among some to the actuarial risk assessment component than to the two non-actuarial components.

It is not clear from the research literature whether applying clinical/professional judgment to a risk score calculated from a rating scale actually improves the accuracy of the risk prediction. Quinsey et al (2006), cited in Hilton and Harris (2007, p117), found "no evidence that blending assessors' clinical judgment with actuarial scores improves the accuracy achieved by actuarial methods alone”.

However, despite the fact that the structured professional judgment approach is considered to be a less effective predictor of future violence and homicide than actuarial methods, Hilton and Harris (2007) are of the view there is still an important role for clinical judgment in risk assessment. They say that many of the most valid risk-related items in an actuarial tool require clinical skill to evaluate (e.g. personality disorder, addictions, childhood history of aggression, and psychopathy), (Hilton and Harris, 2007, p117).

2.5 Which approach is best?

As indicated above, the literature is mixed in terms of support for the different approaches to risk assessment. The *best* approach will to some extent depend on the context and purpose of the assessment process.

Kropp (2008) notes that the “choice of a method of risk assessment is complicated”, but asserts that “the most viable options are either a structured professional judgment approach or an actuarial procedure”. Hilton and Harris (2007) assert that actuarial tools are consistently found to be more valid than other approaches.

Roehl et al (2005) found that structured or actuarial approaches were better than chance, and better than victims' assessments, at predicting future violence, but were far from accurate. They wrote:

> “Without further research, we cannot unequivocally recommend a particular approach for use in assessing risk in domestic violence cases. We advise practitioners to: …assess risk with all means available, including the expert judgment and clinical wisdom of practitioners (their knowledge of domestic violence and the offender’s criminal record); a formal method with some evidence of predictive accuracy…; and the victim’s own assessment.” (Roehl et al, 2005)

Much of the research literature concludes that a risk assessment process ought to include more than one source of data (Dutton and Kropp, 2000; Hanson et al, 2007; Hilton and Harris, 2007; Kropp, 2008; Roehl et al, 2005; Websdale 2000), including:

- a well tested actuarial risk assessment tool that has proven over time to be internally and externally valid and reliable, and that is appropriate to the expertise of those expected to use it (Dutton and Kropp, 2000; Roehl et al, 2005)

- victim statements and narratives, especially relating to her level of fear and assessment of risk (Campbell et al, 2009; Dutton and Kropp, 2000; Hanson et al, 2007; Hilton and Harris, 2007; Kropp, 2008; Roehl et al, 2005)
- expert judgment and clinical wisdom of practitioners (their knowledge of domestic violence and the offender's criminal record) (Roehl et al, 2005), and professional discretion (Kropp, 2008).

In the sexual assault and mental health fields, formal assessment is found to be much better than expert or professional judgment, but a combination of the two is considered to be the best approach. (Roehl at al, 2005)

3 Validating risk assessment tools

To ensure that tools are of good quality, they should be assessed for reliability and validity (validation).

Reliability is the *consistency* or *repeatability* of the result produced by a risk assessment tool. Validity is the *accuracy* or *correctness* of the result produced (i.e. whether the tool measures what it is supposed to measure). Predictive validity, which is of particular importance in this review, is the *accuracy* or *correctness* of the risk assessment tool in relation to predicting future violence.

3.1 Reliability

- The **test-retest reliability** of a risk assessment tool is estimated by administering the tool with the same respondents at different points in time. The correlation coefficient between such two sets of responses is often used as a quantitative measure of the test-retest reliability, and is ideally close to 1.[11]
- **Inter-rater reliability** assesses the degree to which different administrators of the tools (assessors) give consistent estimates of the same incident. One way to improve inter-rater reliability is to hold 'calibration meetings' of those who are administering the tools, where the scores for individual items for selected incidents are discussed, and agreement is reached on how each item is interpreted.

3.2 Validity

- Campbell (2009) refers to **discriminant group validity** which examines whether mean scores discriminate among contrasting groups of victims, for example non-abused women and abused women presenting at a hospital emergency department.
- **Construct validity** examines whether the tools include items which are known and established risk factors.
- **Convergent validity** examines correlations between the results for the risk assessment tool being tested and other validated instruments expected to show similar results (Campbell, 2009, and Kropp, 2008).
- **Criterion validity** is how well the results from a risk assessment tool can predict 'criterion' or concrete variables (in this case reassault or serious assault/lethality) in the real world. Predictive validity is a type of criterion validity.

3.3 Predictive validity

Predictive validity can be tested by administering the tool to establish levels of risk for an independent sample where the outcome is already known. Where the tool assesses risk of lethality, the sample can be drawn from victims of attempted homicide, or proxy informants for victims of homicide (such as close friends or family) (Campbell et al, 2009). Where the tool assesses risk of reassault, the sample can be

[11] http://www.statistics.com/resources/glossary/t/trtreliab.php retrieved 22-02-2010

prospective, with cases followed for a period of time following an index incident to measure the severity and frequency of reassault from arrest records or victim self report (Roehl, 2005, and Kropp, 2008).

Recruitment and retention of victims, and those who provide proxy information in these studies, is challenging. In conducting this type of research it is important that interviewers are specially trained and that appropriate safety protocols are put in place.

Each data source employed to measure predictive validity carries advantages and disadvantages, so using more than one source strengthens the test. It is important to draw samples from a range of contexts, such as a range of urban and rural settings, to assess whether the result is valid across different settings.

Analyses are stronger where they control for "protective actions" which are actions taken by the victim, such as use of a refuge, or the system, such as imprisonment of the offender, that reduce the possibility of reassault. This improves the predictive validity of the tool by reducing the number of "false positives" it identifies (Roehl, 2005).

3.3.1 Receiver Operating Characteristic (ROC) curve

The effect size of a risk assessment tool is commonly stated in the form of the area under the Receiver Operating Characteristic (ROC) curve. It represents the trade-off between the ability to predict true positives (sensitivity) and the avoidance of false positives (specificity). The area under the ROC ranges from 0 to 1.0, where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris, 2007). Kropp (2008) has explained this as follows:

> "One way of interpreting an [ROC score] of 0.6 is as follows: If a recidivist and nonrecidivist were randomly chosen from their respective groups, the probability would be 0.6 that the recidivist would have a higher [risk assessment] score".

Nevertheless, ROC scores can be confusing. The literature shows different scores for the same scale when it is tested in different studies—for example, in studies of the SARA, ROC areas of 0.65 (Grann and Wedin, 2002 and Williams and Houghton, 2004), 0.67 (Hilton et al, 2004), 0.64 (Heckert and Gondolf, 2004), were reported for the total score in relation to wife assault recidivism.

3.4 Validity of risk assessment tools with different population groups

The vulnerability of domestic violence victims “could be further compounded by issues such as traditional gender roles, literacy, language and/or immigration or refugee status.” (Metropolitan Police Service, 2003)

3.4.1 Different ethnic groups

Most of the risk assessment instruments have been developed in English and may have excluded the experiences of different ethnic or minority groups. This may have introduced a bias into the development of these tools which doesn't take account of the experiences of these groups of women. This may then influence the effectiveness of using risk assessment tools with these groups.

The research suggests that some groups of women are more likely to provide personal information than others when faced with detailed questions or a form asking about their personal lives and relationships. Websdale (2000, p.4) states that "women of color may be particularly reluctant to disclose personal information to advocates, police, or other criminal justice personnel".

This could be due to:

- their unwillingness to 'betray' their partners to the very system that has traditionally been seen to oppress their culture (such as African-Americans (Websdale, 2000), or in New Zealand perhaps Māori women or women in gangs)
- a cultural ethic that values the sanctity and privacy of the family (such as Asians (Websdale, 2000) or in New Zealand, Asians and Pacific Peoples).

The Danger Assessment was developed using a dataset that included a significant proportion of African-American women, and it has been used successfully with both African-American and Hispanic women, (but not Asian women). However, the authors Campbell et al (2009) highlight the need for ongoing evaluation and testing with different ethnic groups and rural populations.

Caution has been expressed about singling out culture or ethnicity as a risk factor:

> “It would not be recommended that any other forces use ‘Culture’ as a category as it is generally under-utilised except in relation to black and minority ethnic families — ‘isolation’ or ‘barriers to help-seeking’ or ‘attitudes’ may be more accurate. While there was not evidence in the case file data from either London or West Yorkshire that it was being used in a discriminatory or stereotyped way, it is a category which runs this risk and would then fall outside the Race Relations (Amendment) Act, 2000. The strength of feeling expressed about its use as a category suggests that if the risk assessment model is to enhance multi agency working then it is unnecessarily controversial and has the potential to be used in a discriminatory way.” (Humphreys et al, 2005)

3.4.2 Same-sex couples

Most risk models and risk assessment tools have been developed and tested with heterosexual samples. They may therefore "exclude, marginalise, or be ill-suited to lesbian women at risk of lethal violence" (Websdale, 2000, p.4). However, in the absence of a tool developed especially for same-sex couples, these tools are applied.

New developments are underway in this area—Glass and colleagues (in press) have revised the existing validated Danger Assessment, to form an 18-item Danger Assessment - Revised (DA-R), to assess for reassault in abusive female same-sex intimate relationships. Results from the testing of the new DA-R are forthcoming. (Campbell et al, 2009)

4 Risk factors

> "The risk factors for domestic violence—that is, the variables that are reliably associated with this form of violence—are well-established in the literature. We know what they are, and it is unlikely that any new risk factors will turn up soon." (Kropp, 2008)

This section outlines the risk factors that have been identified in the research and best practice literature. Because New Zealand Police are focused on assessing the risk of serious harm and lethality (homicide risk), this section attempts to separate risk factors into:

- those that are associated with recidivism or repeat assault but less likely to indicate potential lethality, and
- those that are most significant for serious harm or lethality.

Despite a general agreement in the literature about the risk factors for recidivist intimate partner or family violence, there is less agreement around which specific risk factors are indicative of homicide risk.

> "One of the biggest problems with the lethality assessment instruments is that they purport to use "lethality indicators" that are, in fact, characteristics of many domestic violence relationships, the vast majority of which do not end in death." (Websdale, 2000)

> "Although the factors on risk assessments for IPV[12] reassault and IPH[13] overlap, they are not exactly the same (Campbell, 2004)." (cited in Campbell et al, 2009)

4.1 Risk factors highly correlated with lethality or serious harm/ danger

Few studies have attempted to identify risk factors for lethality or near lethality, just as few risk assessment tools have been designed to assess lethality or near lethality.

One of the most recent studies was undertaken by Campbell et al (2003) using the Danger Assessment. Prior to that, a review by Websdale (2000) provided a good overview on lethality assessment and risk factors.

Campbell et al (2003) undertook a multisite (four city) case control study to explore the relative importance of various risk factors for intimate partner homicide (focusing on femicide). The study involved gathering data from 220 femicide cases and interviewing people who were very close to the victims (mothers, sisters, close friends, etc.) who could answer intimate questions on behalf of the victims. These people were described as 'proxies' for the victims. A control group of 343 abused women were also interviewed. Table 1 below shows the risk factors that Campbell's study, and others, have shown to be most related to lethality.

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[12] Intimate partner violence
[13] Intimate partner homicide

The most common risk factor for intimate partner homicide is previous intimate partner violence, with 67–80% of intimate partner homicide cases studied indicating previous intimate partner violence (Campbell et al, 2009)

Table 1: Risk factors for serious harm or lethality

Lethality/serious harm risk factors	Source
• Threats with a weapon	Women who were threatened or assaulted with a gun or other weapon were 20 times more likely than other abused women to be murdered (Campbell et al, 2003) (Also, Block, 2004, cited in Klein, 2009)
• Threats to kill	Women whose partners threatened them with murder were 15 times more likely than other abused women to be killed (Campbell et al, 2003) (Also Klein, 2009, and Websdale, 2000)
• Attempts to choke/strangle	Ten times more likely to be killed (Campbell et al, 2003 and Koziol-McLain et al, 2006, cited in Klein, 2009)
• Forced sex	Seven and a half times more likely to be killed (Campbell et al, 2003 and Koziol-McLain et al, 2006, cited in Klein, 2009) (Campbell et al, 2009)
• Access to a gun	When a gun was in the house, an abused woman was 6 times more likely than other abused women to be killed (Campbell et al, 2003) (Also Websdale, 2000)
• Escalating *severity* of physical violence over time	More than 5 times more likely to be killed (Campbell et al, 2003 and Koziol-McLain et al, 2006, cited in Klein, 2009)
• Escalating *frequency* of physical violence over time	More than 5 times more likely to be killed (Campbell et al, 2003 and Koziol-McLain et al, 2006, cited in Klein, 2009)
• Extreme jealousy ◦ and obsessive possessiveness ◦ partner's control over victim's daily life	(Campbell et al, 2003) (Websdale, 2000) More than five times more likely to be killed (Campbell et al, 2003 and Koziol-McLain et al, 2006, cited in Klein, 2009)
• Drug abuse or serious alcohol abuse	Just over 4 times more likely to be killed. (Campbell et al, 2003) (Also Websdale, 2000)
• Abuse during pregnancy	Almost 4 times more likely to be killed (Campbell et al, 2003)
• Abuser stalking victim	(Campbell et al, 2009; Kropp 2008; Websdale, 2000)
• Abuser not being the father of the children in the household/victim's children	(Campbell et al, 2003; Campbell et al, 2009; Hilton and Harris, 2007; Koziol-McLain et al, 2006, cited in Klein, 2009; Kropp 2008)
• The victim leaving the abuser ◦ after living together ◦ for another partner	(Campbell et al, 2009; Websdale, 2000) (Campbell et al, 2003; Hilton and Harris, 2007; Kropp 2008)
• Victim estrangement from abuser	(Campbell et al, 2009; Kropp 2008; Websdale, 2000)
• A large age difference between abuser (older) and victim (younger)	(Campbell et al, 2009)
• Abuser having a mental illness	(Campbell et al, 2009; Websdale, 2000)
• Previous police involvement	(Websdale, 2000)

Campbell et al (2003) point out that although drug abuse or serious alcohol abuse separates killers from batterers, there are other factors, such as threats to kill, attempts to choke, forced sex, and extreme jealousy/control, that present higher risks for lethality.

4.2 Suicide attempts or threats and serious danger/lethality

Threatened or attempted suicide by either the perpetrators or the victims in Campbell et al's 2003 study were not found to be predictors of intimate partner homicide.

However, they did find an increased risk of homicide when the perpetrator is suicidal and there has not previously been any physical abuse. About a third of the murders examined in the study were homicide-suicides. The authors noted the need for further analysis to learn how a man's potential for suicide increases his partner's risk of becoming a homicide-suicide victim. (Campbell et al, 2003)

4.3 Risk factors correlated with intimate partner violence recidivism

As highlighted by Websdale (2000), many of the risk factors for lethal intimate partner violence (Table 1) also seem to be indicated for intimate partner violence recidivism generally (Table 2).

Table 2: Risk factors for intimate partner violence recidivism

Risk factors	
• Previous assault	Experiencing previous physical aggression by the same partner was found to be the best single predictor of reassault by Houry et al. (2004), and Lorber and O'Leary (2004), (cited in Perez Trujillo and Ross, 2008).
• Offender being young	Hilton and Harris (2007)
• Low socio-economic status	Hilton and Harris (2007)
• A history of marital conflict	Hilton and Harris (2007)
• Offender having a criminal or arrest history (offence not specified)	Hilton and Harris (2007)
• Offender having history of anti-social behaviour	Hilton and Harris (2007) And, the web-based summary of the Ontario Domestic Assault Risk Assessment (ODARA) http://www.mhcp-research.com/odarasum.htm
• Level of alcohol consumption by offender	Fals-Stewart (2003) found that men who drank and physically assaulted their wives, assaulted them more on days when they drank more. (Hilton and Harris, 2007)
• Substance abuse	Sheridan et al in Campbell (2007)
• Victim having a child in the home who is not the biological child of the abuser	Campbell et al (2009); Hilton and Harris (2007); Kropp (2008)
• Victim's fear of future assault	Campbell et al (2009); Hanson et al (2007); and Hanson et al (2007)

Hilton and Harris (2007) report that the most consistent predictors of wife assault recidivism are similar to predictors of general criminal and violent recidivism, such as:

- the offender being young and of low socio-economic status
- there being a history of marital conflict
- there being a history of verbal abuse, and
- the offender having previously been arrested (offence not specified).

They also report that these strongest predictors of wife assault recidivism are also predictors of frequency and severity of repeated wife assault.

4.4 Which risk factors should be included in a risk assessment tool?

> "Additional analysis of the current data is needed to examine separate risk factors more closely. Additional item analysis will shed light on which individual risk factors are most predictive and which might lead to new instruments tailored to different settings and purposes." (Roehl et al, 2005)

The question of which risk factors to include in risk assessments is continuously being reassessed and revised in the literature, as more validation studies are undertaken and the predictive power of individual risk factors is measured. For example, although 'jealousy' is considered by Campbell et al (2003), and others, to be an important risk factor, Hilton and Harris (2007) suggest that it is unnecessary to include it in a risk assessment tool because it is correlated with stronger predictors, such as 'threats of violence', or 'victim fear'.

Gondolf (2002) listed four commonly identified risk factors as having poor predictive power, even when combined. They were:

- excessive alcohol use
- severe psychological problems
- several prior arrests
- being abused or neglected.

Gondolf (2002) found that they incorrectly identified many men as false positive (high risk when they were actually low risk) or false negative (low risk when they were actually high risk).

There is some concern that risk factors such as suicidal ideation and patriarchal attitudes, which are difficult to measure empirically, may not be considered appropriate for inclusion in an assessment of risk. Kropp (2008) argues that such factors, "justified by sound theory and professional consensus" should still be considered, "especially given the limitations of social science methodology."

Clearly more work needs to be done to better understand the relative importance of different risk factors in predicting different types of violence. As Kropp (2008) says:

> "… even if the risk factors are similar for the various forms of spousal violence, it could be that the relative importance or weightings of risk factors might vary.... Researchers can better inform stakeholders and bridge the gap between science and practice by dissecting the definition of risk and exploring the interactions between risk factors and "types" of risk." Kropp (2008)

4.5 Victims' fear or perception of risk

The literature urges caution in the use of victim's assessment of risk as a predictive factor, as victims often underestimate their level of risk.

A National Institute of Justice study of 782 abused women found that 23% of victims who rated their risk of being physically reabused as 'low', experienced reassault, and 13% of victims who rated their risk of *serious* physical harm as 'low', experienced subsequent *severe* assaults. Despite this their perceived risk of severe reassault (using the receiver operating characteristic (ROC) curve analysis[14]) was as accurate as some of the formalised risk assessment tools—the K-SID and the DVSI—but less accurate than the DA and DV-MOSAIC[15] (Roehl et al, 2005). Hanson et al's (2007) meta-analysis of intimate partner violence risk assessment tools also found that victims' perceptions of risk were of a similar level of accuracy as other approaches to risk assessment.

In Campbell's (2009) study of victims of near lethal spousal assaults and proxy informants for victims of intimate partner homicide, only about half of victims or informants had accurately assessed their risk of lethal violence. For this reason, while a victim's perception of risk can be used to inform a risk assessment and the development of a risk management approach, it is best used in conjunction with other methods. In some cases victims may need to be helped to understand their level of risk—risk assessment tools like Campbell's Danger Assessment can assist with this (Campbell, 2009).

[14] The area under the Receiver Operating Characteristic (ROC) curve ranges from 0–1.0 where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris 2007). See also section Validating risk assessment tools.

[15] Roehl et al's (2005) Risk Assessment Validation Experiment (RAVE) study found that women's perceived risk, the K-SID and the DVSI all had a predictive accuracy of .62. The DA had a better predictive accuracy of .69 (Campbell et al., 2005) and the DV-MOSAIC was also better at .65 (DeBecker, 1997), (cited in Campbell et al, 2009).

5 Risk assessment tools

> "There are several existing risk instruments, all of which have similar content and some of which have established psychometric reliability and validity." (Kropp, 2008)

This section provides an overview of the risk assessment tools most widely discussed in the research and best practice literature. These tools have generally undergone testing for reliability, validity and predictive accuracy.

Also included is a brief section on some tools used by Police forces internationally—these are less likely to have been widely tested.

In addition to being categorized according to the method they employ (actuarial, or structured/unstructured judgment, as outlined above), risk assessment tools are often categorized in the literature by the type of risk they are designed to assess:

- violence in intimate/spousal/familial relationships
- general violence
- lethal outcomes/homicide, or
- reassault.

Because New Zealand Police have been most interested in assessing the risk of intimate partner violence that might result in homicide or serious harm, the tools have been categorized below according to whether they assess lethality or reassault.

Few tools have been designed specifically to assess the risk of lethality. However, some of the tools designed to assess the risk of reassault can be used to assess the likelihood of severe harm or potential lethality, and for this reason have been included in this review.

The Violence Risk Appraisal Guide (VRAG), designed to assess risk of general violence, has been included below because in some studies it has been found to be as accurate as, or more accurate than, some tools specifically designed to assess the risk of intimate partner violence (IPV).

Similarly, the Psychopathy Checklist – Revised (PCL-R), which is a component of the VRAG, is included because it is an effective tool for predicting of future violent behaviour—even though it wasn't designed specifically to assess family violence reassault or lethality.

Table 3 provides a summary/overview of the tools presented in this section.

5.1 Lethality assessment instruments

Tools that focus on predicting lethal, near lethal, or potentially lethal outcomes are the:

- Danger Assessment (DA), and
- Method of Assessment of Domestic Violence Situations or Domestic Violence Method (DV-MOSAIC).

5.1.1 Danger Assessment (DA)

The Danger Assessment (DA)[16] is a well-tested and validated tool designed to assess the likelihood of lethality or near lethality occurring in a case of Intimate Partner Violence (IPV).

It has two parts:

1. a diary/timeline for the victim to complete on the frequency and severity of abuse, and
2. 20 yes/no questions[17] to be asked of the victim, covering, among others, threats or attempts to kill or cause harm, threats with a weapon, being choked, abuser's access to a handgun, abuser's stepchildren in the home, and abuser's unemployment, controlling or jealous behaviour, and recent separation.

It also includes an algorithm for calculating the level of risk (Campbell et al, 2009). Scoring is from -3 to 37 and is divided into four risk categories: variable, increased, severe and extreme danger.

The DA is the oldest of the measures currently used. It was initially developed by Campbell in the 1980s to assess the likelihood that battered women presenting to emergency departments would be murdered by their abusive partners, (Campbell, 1986, cited in Hanson et al, 2007). It has been revised over time from a 15 item to a 20 item instrument in response to various tests and studies. Both the original and the revised versions of the DA significantly discriminated between femicide cases and abused control groups in Campbell et al's (2003) multisite study.

It can also be, and has been, used to predict *reassault* (Heckert & Gondolf, 2004, cited in Hanson et al, 2007).

The first part of the assessment is the diary for the victim to complete. The purpose of this is to help them more accurately acknowledge what they are experiencing over time and any increases in severity or frequency. Victims often minimize their experiences of violence, and those who have used this DA tool have often been surprised by the extent of their own experiences when they look back over the record.

The second part—the 20 questions—is to help determine level of risk of lethality, and is usually completed collaboratively by the victim and a health, criminal justice, or victim services professional.

The DA has good inter-rater reliability, strong test-retest reliability and construct validity, correlating strongly with other measures of abusive behaviour (Kropp, 2008). Campbell et al (2001, cited in Kropp, 2008) highlighted that the predictive accuracy of the DA needed to be tested using a prospective study. Roehl et al (2005) (including Campbell) undertook such a study for the National Institute of Justice, comparing four different risk assessment tools. Their study showed that the DA had a predictive accuracy of 0.69 (using the ROC curve)[18] which was a slightly better result than those from the other three tools tested (the K-SID, DVSI and DV-MOSAIC).

[16] See www.dangerassessment.com.

[17] The DA originally had 15 questions but has been refined through testing with some questions changed and new questions added.

[18] The area under the Receiver Operating Characteristic (ROC) curve ranges from 0–1.0 where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris, 2007). See also section Validating risk assessment tools.

Although well-tested already compared to many other risk assessment tools, Campbell et al (2009) recently reiterated the need for ongoing evaluation and testing of the DA with different ethnic groups and rural populations.

5.1.2 Method of Assessment of Domestic Violence Situations or Domestic Violence Method (DV-MOSAIC)

The Method of Assessment of Domestic Violence Situations or Domestic Violence Method (DV-MOSAIC)[19] is a computer-assisted method (by DeBecker & Associates, 2000, cited in Roehl et al, 2005) which calculates a lethality risk score of 1–10 from the responses to 46 items on risk and protective factors.

It was designed to be completed by criminal justice professionals drawing on criminal justice records and information from or about offenders as well as from victim interviews (Roehl et al, 2005).

Roehl et al (2005) found that the DV-MOSAIC had better predictive accuracy than a victim's own prediction, and that it was better at predicting the likelihood of a severe assault than it was at predicting the likelihood of abuse generally. Their study showed that the DV-MOSAIC had a predictive accuracy of 0.65 using the ROC[20] curve.

5.2 Reassault assessment instruments

Tools that focus on assessing the likely reoccurrence of assault include:

- Domestic Violence Screening Inventory (DVSI)
- Spousal Assault Risk Assessment Scale (SARA)
- Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER)
- Ontario Domestic Assault Risk Assessment (ODARA)
- Psychopathy Checklist – Revised (PCL-R)
- Violence Risk Appraisal Guide (VRAG)
- Domestic Violence Risk Appraisal Guide (DVRAG)
- Kingston Screening Instrument for Domestic Violence (K-SID)

5.2.1 Domestic Violence Screening Inventory (DVSI)

The DVSI is a brief risk assessment tool designed by the Colorado Department of Probation Services in order to assess the likelihood of domestic violence perpetrators reoffending, so that the Department can make decisions relating to supervision, or probation/parole (Kropp, 2008).

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[19] See www.mosaicsystem.com/dv.htm.

[20] The area under the Receiver Operating Characteristic (ROC) curve ranges from 0 - 1.0 where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris, 2007). See also section Validating risk assessment tools.

The tool includes 12 items, scored 0-3, relating to the offender's general criminal history, domestic violence history, treatment for domestic violence or substance abuse, current offence (especially relating to restraining orders), employment and relationship status (Hilton and Harris, 2007; Kropp, 2008). These items have all been found to be statistically related to recidivism by domestic violence perpetrators on probation (Williams & Houghton, 2004, cited in Hilton and Harris, 2007).

The assessment is completed by probation or other court officers using information from the offender's criminal record and interview, and interviews with victims. Two risk categories are identified—'not high risk' and 'high risk'. (Roehl et al, 2005)

The predictive accuracy of the DVSI has been shown to be 0.60 (ROC area)[21]—in a study where probation officers significantly predicted subsequent wife assault arrests up to 18 months later (using a prospective study/follow-up design with 1465 offenders) (Williams and Houghton, 2004, cited in Hilton and Harris, 2007; Kropp, 2008)

In terms of validity, the DVSI has shown criterion validity, correlating strongly with risk scores from the Spousal Assault Risk Assessment Guide (SARA), however according to Kropp (2008) there have been no independent validity studies of the DVSI (at time of writing).

5.2.2 Spousal Assault Risk Assessment Scale (SARA)

The SARA is a validated, and commonly used, structured judgment tool for assessing risk of future spousal or intimate partner violence. It was originally developed by Kropp, Hart, Webster, & Eaves (1995) as a set of guidelines for structuring the professional judgment of family violence assessors (Hilton et al, 2007).

It consists of 20 items, scored 0–2, covering the offender's criminal history, psychological functioning, and current social adjustment.

> "The assessment procedure includes interviews with the accused and victims, standardized measures of physical and emotional abuse, drug and alcohol abuse, and a review of collateral records, such as police reports, victim statements, criminal records, and other psychological procedures." (Kropp, 2008)

Each item is scored, the number of items present is noted, and whether any item is critical. This is followed by a summary clinical judgment of the risk of imminent or other future harm to family members (Kropp, Hart, Webster, and Eaves, 1999, pp9–10) (cited in Hanson et al, 2007).

The items were based on a combination of empirical evidence relating to factors that predict IPV or recidivism, and on the experience of clinical assessors (Hilton et al, 2007).

Hanson et al (2007) note that contrary to the authors' intentions, the SARA is often used as a risk scale, with the sum of the items being used to calculate the final risk rating rather than being considered in combination with professional judgment.

[21] The area under the Receiver Operating Characteristic (ROC) curve ranges from 0–1.0 where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris, 2007). See also section Validating risk assessment tools.

> "... the Spousal Assault Risk Assessment (SARA; Kropp, Hart, Webster, & Eaves, 2000), is aimed at predicting both lethal violence and reassault outcomes; however, it has only been evaluated on the basis of IPV reassault outcomes (Kropp et al., 2000)." (cited in Campbell et al, 2009)

5.2.3 Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER)

The B-SAFER has been developed by the authors of the SARA in response to calls, particularly from law enforcement agencies, for shorter risk assessment tools that can be administered in a shorter time-frame. The B-SAFER tool has 10 items, derived by factor analysis[22] from the 20 items used in the SARA (Kropp, Hart and Belfrage, 2005, cited in Kropp, 2008).

> "The B-SAFER has been piloted in Canada and Sweden, and preliminary findings suggest that the B-SAFER ratings are associated with the type and number of management strategies recommended by police. Further, it appears that the use of the B-SAFER contributed to reduced recidivism rates in a sample of Swedish offenders (Kropp, 2004a, 2007)." (Kropp, 2008)

5.2.4 Ontario Domestic Assault Risk Assessment (ODARA)

The Ontario Domestic Assault Risk Assessment (ODARA) is an empirically-tested and validated spousal assault risk scale developed in Ontario, Canada (Hilton et al., 2004, cited in Hanson et al, 2007). It was the first actuarial risk assessment tool designed specifically to measure wife reassault and was developed by the Ontario Provincial Police and the Ontario Ministry of Health as a brief tool for use by frontline Police and victim service providers, (Hilton and Harris, 2007, and Mental Health Centre Penetanguishene[23]).

Although designed to be used by Police officers and victim service providers, it has been shown that a wide range of users can reliably use the ODARA "even without training, although they are significantly better after a one-day workshop" (Hilton and Harris, 2007, p117).

The ODARA contains 13 items, covering substance abuse, the offender's previous history of violence, domestic and non-domestic criminal history, threats and acts of confinement committed during the most recent incident, victim concern about future assaults, the number of children in the family, the victim's barriers to support, and other circumstances.

The ODARA assesses the risk of reassault rather than lethality. However, higher scores have been shown to indicate more frequent and more severe assaults, occurring sooner and causing more injury. Retrospective scoring of murder cases would have put them in the highest score category on the ODARA. The ODARA is designed as a stand alone tool, not to be used with any other information (Mental Health Centre Penetanguishene[24]).

> "Unlike many of the other scales in which the items were selected based on theory or prior research, the ODARA was developed empirically. Items that could be reliably

[22] Factor analysis is a statistical method which can lead to reducing the number of items/factors necessary in a tool through determining any underlying common elements or variance.
[23] http://www.mhcp-research.com/odarasum.htm ODARA Summary, downloaded June 2009
[24] http://www.mhcp-research.com/odarasum.htm ODARA Summary, downloaded June 2009

> assessed by police were examined for their incremental validity in predicting subsequent police contact for spousal assault", and the scale was then tested in a new validation sample. (Hanson at al, 2007)

The items were selected from a range of potential predictors, gathered from almost 600 cases in police records, and using multivariate analyses and bootstrapping[25] to maximize the likelihood that the ODARA would generalize to new samples (Hilton and Harris, 2007). The items chosen were determined by multiple regression techniques to be the most highly predictive of future violence (Mental Health Centre Penetanguishene[26]).

The ODARA has a high predictive accuracy for spousal reassault compared to other tools (a ROC[27] area of .77). This is higher than for any assessment tool that does not use the Psychopathy Checklist (PCL-R) [28]. Hilton et al (2004) also note that the ODARA scores are related to frequency, severity and rapidity of wife reassault.

In terms of validity, the ODARA performed well in a cross-validation study (.72) (Hilton et al, 2004, cited in Hilton and Harris, 2007) and demonstrated adequate convergent validity when correlated with the SARA and the DA (Kropp, 2008). Kropp (2008) suggests that further cross-validation studies are required to "substantiate the precise probabilities associated with each ODARA score." Inter-rater reliability is also very high among police officers and other users scoring real cases from records (Hilton et al, 2004, cited in Hilton and Harris, 2007).

5.2.5 Psychopathy Checklist – Revised (PCL-R)

The Psychopathy Checklist – Revised (PCL-R), is a diagnostic tool commonly used by trained clinicians in forensic settings to assess psychopathy, and to predict a prisoner's likelihood of reoffending and potential for rehabilitation. Developed by Hare in the 1980s, the PCL-R is a 20 item rating scale. Information from semi-structured interviews and file records are used to rate each item on a three-point scale according to specific criteria. A value of 0 is assigned if the item does not apply, 1 if it applies somewhat, and 2 if it fully applies.

The checklist assesses lifestyle and criminal behaviour as well as the following traits: glib and superficial charm, grandiosity, a need for stimulation, pathological lying, conning and manipulating, lack of remorse, callousness, poor behavioural controls, impulsivity, irresponsibility, and failure to accept responsibility for one's own actions.[29]

The PCL-R is reported to have good inter-rater reliability and good predictive validity, evidenced in a wide variety of populations and countries. ROC scores for the PCL-R are reported to be in the 0.7 range[30]. Hemphill et al., (1998), (cited in Hare et al., 2000, p.628) found that in the year following release from custody, offenders classified as psychopaths are three times more likely to reoffend, and four times more likely to violently re-offend, than other offenders.

[25] 'Bootstrapping' is a resampling technique used to obtain estimates of summary statistics.
[26] http://www.mhcp-research.com/odarasum.htm ODARA Summary, downloaded June 2009
[27] The area under the Receiver Operating Characteristic (ROC) curve ranges from 0–1.0 where 1.0 represents perfect prediction, 0.5 represents no prediction, and 0 represents inverse prediction (Hilton and Harris 2007). See also section Validating risk assessment tools.
[28] http://www.hare.org/scales/pclr.html, downloaded July 2009
[29] http://en.wikipedia.org/wiki/Hare_Psychopathy_Checklist, downloaded April 2011
[30] http://www.psychology.heacademy.ac.uk/miniprojects/riskassessment/Violence%20RA/pclr_reliability_and_validity.html, downloaded April 2011

5.2.6 Violence Risk Appraisal Guide (VRAG)

The Violence Risk Appraisal Guide (VRAG) was developed to assess the risk of general violence recidivism among maximum security violent offenders. Although it was not specifically designed to measure intimate partner violence, it has been shown in some studies to be a better predictor of wife reassault with a ROC score of 0.75 than instruments that were designed for that purpose (Grann and Wedin, 2002; and Hilton et al, 2001; cited in Hilton and Harris, 2007).

The VRAG is an actuarial tool made up of twelve questions including the PCL-R (Psychopathy checklist). While the PCL-R is held to be a highly accurate predictor of violent behaviour, it should only be administered by trained clinicians.

In terms of validation, the VRAG was initially cross-validated on serious offenders and subsequently found to predict violent recidivism in over 25 samples, both forensic and psychiatric (http://www.mhcp-research.com/ragreps.htm; cited in Hilton and Harris, 2007).

5.2.7 Domestic Violence Risk Appraisal Guide (DVRAG)

The Domestic Violence Risk Appraisal Guide (DVRAG) was developed in the same way as the VRAG, by Hilton, Harris, Rice, Houghton and Eke (in press; cited in Hilton and Harris, 2007), however it was specifically designed to predict reassault by wife assaulters.

The DVRAG consists of 14 weighted items and the PCL-R. 13 of the items are similar to the Ontario Domestic Assault Risk Assessment (ODARA). The DVRAG takes more time and is more in-depth than the ODARA, and while it is considered by Hilton and Harris (2007) to be better at discriminating among high-risk wife assault perpetrators, or offenders in a corrections environment for parole or release decision-making, the ODARA is considered to also provide an accurate prediction of wife reassault using a shorter, simpler procedure, more suitable for front-line situations such as policing.

5.2.8 Kingston Screening Instrument for Domestic Violence (K-SID)

The Kingston Screening Instrument for Domestic Violence (K-SID) (Gelles, 1998, cited in Roehl et al, 2005) was designed for use by probation or courts staff in making decisions about supervision, release, parole etc. of domestic violence offenders. Staff would draw on criminal justice records, information from or about offenders, and victim interviews.

The K-SID is a set of ten questions about risk factors—each question with 2-3 response categories, as well as an offender poverty status scale. A score is calculated from 0-10 and four categories of risk can be allocated: low, moderate, high or very high. (Roehl et al, 2005)

5.3 Other risk assessment tools/approaches developed by (or for) Police forces

Various Police forces internationally have developed their own risk assessment approaches/tools, just as the New Zealand Police have done. These approaches/tools have not been as widely discussed in the research literature as those outlined above, but the following have been reviewed:

- Family Violence Risk Assessment and Management Report – Victoria, Australia

- Metropolitan Police Service Domestic Violence Risk Assessment Model (SPECSS) - London, UK
- Tasmanian Police Family Violence Risk Assessment Screening Tool (RAST)
- Lethality Assessment Screen for First Responders, Maryland, USA

5.3.1 Family Violence Risk Assessment and Management Report – Victoria, Australia

The Family Violence Risk Assessment and Management Report (L17A) was designed by the Family Violence Unit of Victoria Police. It has been used by police in Victoria since 2004 and collects the following information:

- previous police involvement with the parties and existence of previous Intervention Orders (4 questions)
- history of domestic violence and incident progression (9 questions)
- presence and use of firearms and weapons (8 questions)
- use and nature of threats (3 questions)
- victim's level of fear (2 questions), and
- compounding risk indicators (23 questions on recent escalation, violent past, separation, etc.). (Perez Trujillo and Ross, 2008)

Information is also collected on: age, marital status, previous and further incidents, number of aggressive behaviours in the present incident, presence of visible injuries, presence of alcohol or drugs, and victim or police statement of concern for safety.

Police attending an incident are required to record their judgments about the likelihood of future violence on a 5-point scale—rare, unlikely, possible, likely, or almost certain—and any risk management actions they took either at the scene or immediately afterwards, including: referral (formal or informal), civil (protection order) and/or criminal (charges). (Perez Trujillo and Ross, 2008)

Perez Trujillo and Ross (2008) undertook a study of 501 of the Victorian Police's completed risk assessment forms to examine what information the Police were using to make assessments of risk and decisions about risk management strategies. They found that in the implementation of the approach, only some items on the form were used to make assessments and decisions and many were not.

The study was not a validation study to assess how well the form predicted future violence, and this review does not have any such information about the Victorian Police risk assessment tool, so cannot comment on the predictive validity of the tool itself. However, Perez Trujillo and Ross's (2008) study shows that the way the tool is used is possibly of greater significance than the tool's intrinsic validity. This is discussed further in the section on Risk assessment in Practice - Risk assessment by Police.

5.3.2 Metropolitan Police Service Domestic Violence Risk Assessment Model (SPECSS) – London, UK

The Metropolitan Police Service (MPS) Domestic Violence Risk Assessment Model (SPECSS) was developed by the Understanding and Responding to Hate Crime Team in a joint project with the Home

Office. It was designed to help systematize and standardize risk assessment decisions being undertaken by Community Safety Units.

It uses a structured professional judgment model, to be used as a guide only, and does not provide an absolute measure or cut-off scores (Metropolitan Police Service, 2003).

There are three parts to the model:

1. an initial assessment of risk by the attending officer using six important risk factors (SPECSS)—Separation including child contact, Pregnancy including new birth, Escalation, Culture including community isolation and barriers to reporting, Stalking and Sexual Assault
2. a fuller assessment of risk by the investigating officer which includes factors such as abuse of children, abuse of pets, access to weapons, either victim or perpetrator being suicidal, drug and alcohol problems, jealous and controlling behaviour, threats to kill, and mental health problems, and
3. an intervention plan to manage the risks identified.

An early-implementation process evaluation has been undertaken of the MPS Risk Assessment Model (Humphreys et al, 2005). This is not a validation study and cannot conclude how effective the model is at accurately assessing risk. However it was able to make recommendations for further development and implementation of the model, and recommended that an outcome evaluation be undertaken (although depending on methodology this may not provide any conclusions on predictive validity either).

5.3.3 Tasmanian Police Family Violence Risk Assessment Screening Tool (RAST)

The Tasmanian Police Family Violence Risk Assessment Screening Tool (RAST) was introduced as part of Tasmania's new 'Safe at Home'[31] initiative in 2004. It was developed by the Tasmanian Police and Department of Justice and has since been reviewed and refined (Tasmanian Institute of Law Enforcement Studies, 2005).

The tool is a 34 item checklist with two categories of risk factors—a set of higher risk factors that each attracts a score of 3, and a set of other risk factors that attract a score of 2. The scores are added to make a total which rates the risk of future violence as being low, medium or high. One of the good things about the tool, according to Winter (2005), is that it includes an admiralty scale (ranking of the reliability and accuracy of the information sources). In applying the tool, the Tasmanian Police recommend the use of additional sources of information (especially if the admiralty scale shows it to be warranted), and the use of professional judgment to over-ride the risk score if considered necessary.

In an analysis of the predictive utility of the tool[32], the Tasmanian Institute of Law Enforcement Studies (2009) concluded that the RAST in use at that time had modest predictive utility (ROC=0.602), but that some potential improvements to the RAST schedule could increase its predictive utility. It was suggested that the tool could be improved by including only those factors that were identified by the analysis as significantly related to reoffending.

[31] A whole-of-government approach to tackling family violence.
[32] The review was commissioned by the Tasmanian Department of Police and Public Safety.

5.3.4 Lethality Assessment Screen for First Responders, Maryland, U.S.A.

The Lethality Assessment Screen for First Responders is based on Campbell's Danger Assessment (DA), and was developed by Maryland Network Against Domestic Violence in conjunction with Campbell and others at John Hopkins University, for use by police officers attending domestic violence scenes[33]. It is a shortened version of the DA, consisting of 11 items, compared to the DA's 20 items. The 11 items include questions on: threats with a weapon, threats to kill, the victim's belief that the abuser will kill them, being choked, abuser's access to a handgun, abuser's stepchildren in the home, and abuser's unemployment—the first three of these being weighted more heavily than the latter two.

Once completed, if the case is rated as high risk, the police officer will discuss the danger with the victim and phone a counsellor straight away—encouraging the victim to talk.

No validation or predictive accuracy information is available on the tool yet as it is part-way through a validation study.

Since January 2006, 85% of law enforcement agencies across the State of Maryland, and agencies in four other US states have adopted a program of undertaking lethality assessments with victims when they attend domestic violence scenes[34].

5.4 Which tool is the best?

Unfortunately the literature does not clearly answer this question. As Hanson et al (2007) point out, "despite the claims of those who promote particular scales, the most accurate approach to risk assessment has yet to be established". Researchers agree that no family violence risk assessment tool is perfect but that prediction of risk in family violence is improving gradually over time.

Dutton and Kropp (2000) identify the following criteria for assessing quality of risk assessment tools:

- inclusion of actuarial instrument
- use of multiple methods and sources
- based on quality research
- internal and external validity and reliability
- longitudinal verification
- peer review
- appropriateness of the level of expertise of the assessors.

Roehl et al (2005) compared the predictive accuracy of:

- the DA designed for health services to predict lethality
- the Method of Assessing Domestic Violence Situations (DV-MOSAIC)
- the DVSI designed for community probation services to predict reassault

[33] Although developed for use by police officers attending a domestic violence scene, the tool is now being trialled by other "first responders" in hospitals, health care and social services settings.

[34] Personal communication, Dave Sargent, Maryland Network Against Domestic Violence, 19 August 2009

- the Kingston Screening Instrument for Domestic Violence (K-SID) designed for use of probation or court services in making decisions about sentences
- the victim's own perception of risk.

They conducted a large-scale study of victims recruited from different settings and locations, and took into account steps victims took to protect themselves. The DA produced the best overall predictive model, particularly for severe abuse, when compared with the other methods and victims' predictions.

A meta-analysis by Hanson et al (2007) of 18 studies found that approaches for predicting spousal recidivism showed similar predictive accuracy, described as moderate. They found that the most accurate tools for predicting recidivism were:

- the Domestic Violence Risk Appraisal Guide (DVRAG) designed for use with offenders in a correctional environment and including the PCL-R (Psychopathy checklist, which should be administered by a psychologist or other clinician)
- the Violence Risk Appraisal Guide designed to assess risk of general violence recidivism among maximum security offenders and also including the PCL-R
- the ODARA designed for police services to predict reassault.

Kropp (2008) suggests that four risk assessment tools showed the most promise in 2008, in that they had recently been evaluated and showed favourable reliability and validity. These are:

- the Danger Assessment Tool (DA) designed for health services to predict lethality
- the Domestic Violence Screening Inventory (DVSI), designed for community probation services to predict reassault
- the Ontario Domestic Assault Risk Assessment (ODARA) designed for police services to predict reassault
- the Spousal Assault Risk Assessment Scale (SARA) designed for family violence assessors to predict reassault.

In concluding which tool may be most accurate in a police setting, the ODARA would appear to have most support in the literature as a tool to predict family violence recidivism. If risk of lethality is the major focus, the Lethality Assessment Screen for First Responders, a shortened version of the DA developed for use by police officers attending domestic violence incidents shows promise, although no validation or predictive accuracy information is yet available.

Table 3: Summary of tools

	Risk assessment approach			Aims to predict		Type of violence					
TOOL	**Actuarial**	**Structured clinical / professional judgment**	**Unstructured clinical / professional judgment**	**Lethality / homicide**	**Reassault**	**Intimate / spousal relationship violence**	**General violence**	**Administered by**	**Information source**	**Predictive accuracy [ROC]**	**Author and year**
DA	✓			✓	can be used	✓		Victim services, Health care staff, Police,	Victim interviews	0.69 (Roehl at al 2005)	Campbell 1986 (cited Hanson, 2007)
DV-MOSAIC				✓		✓		Criminal justice professional	Offender's Criminal and Police records, Victim and Offender interviews	0.65 (Roehl at al 2005)	De Becker & Associates, 2000, cited in Roehl, 2005
DVSI	✓				✓	✓		Probation or Court officer	Offender's Criminal record and interview	0.62 (Roehl at al 2005)	Williams & Houghton 2004
ODARA	✓				✓	✓		Police, Victim services, Health care and Corrections staff	Police records Victim interview	0.72 (Hilton et al 2004 cited in Hilton et al 2007)	Hilton et al, 2004 cited in Hilton et al 2007
SARA		✓		✓ not evaluated for this	✓ evaluated for this only	✓		Family violence assessors	Offender and Victim interviews Criminal records Psychological procedures	0.65 (Williams & Houghton 2004)	Kropp, Hart, Webster & Eaves 1995
B-SAFER						✓		Police	Criminal justice records Victim interviews Offender information		Kropp, Hart & Belfrage 2005, cited in Kropp 2008
K-SID	✓				✓	✓		Probation or Court officer	Victim and Offender interviews, Police reports	0.62 (Roehl at al 2005)	Gelles, 1998, cited in Roehl et al 2005
VRAG (includes PCL-R)	✓				✓	can be used	✓	Trained Probation or Corrections staff	Offender's psychosocial history	0.75, cited in Hilton & Harris (2007)	Harris et al, 1993
DVRAG (includes PCL-R)	✓				✓	✓		Trained Corrections staff	Offender's psychosocial history		Hilton et al , 2008

6 Risk assessment in practice

This section considers the need for risk management, the need for training, the need to communicate risk, and issues that are specific to police carrying out risk assessment.

6.1 Risk management

Risk assessment should always be part of a risk management process, so that the risk identified by the assessment is then managed. Kropp (2008) notes that the literature in the family violence risk assessment field is beginning to focus more on risk management.

> "While risk assessment can inform us about who should be a priority to receive spousal violence treatment, it is important to recognise that risk management involves far more than just domestic violence programming. Other specialized treatments might be necessary, as well as proper monitoring and supervision. Moreover, victim safety planning is crucial, as offender intervention is far from perfect for preventing future violence." (Kropp, 2008)

Ideally, risk management is undertaken by several agencies working collaboratively. The four key risk management activities are:

- monitoring
- treatment
- supervision/restriction
- victim safety planning (Kropp et al 2002).

The need to pay more attention to risk management alongside risk assessment was highlighted by Humphreys et al (2005) in their evaluation of SPECSS. They noted the need to have a risk management plan which allowed the identified risk to be managed as it changed over time.

Roehl et al (2005) highlight the need to plan interventions according to the level of risk identified and the priorities for risk management—noting for example, that where victim safety is the priority, then lower risk categories [i.e. lower scores on formal methods] should be used to identify cases for intervention, and where offender fairness and/or system resources are the priority, then higher risk categories [i.e. higher scores] should be used to identify cases for sanctioning or intensive services.

6.2 Risk assessment training

Most writers agree that the way the tools are administered is as important as the validity and reliability of the tools. Appropriate training receives attention as an essential component of good risk assessment. Kropp (2008) writes:

> "Not everyone can or should perform risk assessments. Such evaluations require specialized knowledge and experience. Those conducting risk assessments should understand the dynamics of domestic violence, and they should have experience working with offenders and victims. Proper risk assessment training is extremely important."

In cases where the assessment model is based upon professional judgment the Tasmanian Institute of Law Enforcement Studies, (2005), states that training needs to be maintained at a high standard and conducted on a regular basis.

Websdale (2000) says that it would be better to train people who provide services to victims in the "intricate dynamics of domestic violence" than trying to produce a "foolproof" predictive instrument, but he acknowledges that instruments have their uses, especially when that training is not provided. He argues that the act of using a risk assessment tool is in itself educative, for both the practitioner (such as a police officer) and the victim, as it encourages them to take into account factors they may not otherwise have considered, and to consider the situation (and level of risk) from a new perspective.

6.3 Communicating risk

In making decisions to manage an identified risk it is preferable for all parties to share an understanding of the level of that risk.

> "Risk assessments that are not effectively communicated to decision-makers and victims are essentially useless." (Kropp, 2008)

Presenting an opinion about risk to colleagues, treatment and service providers, or a victim is more powerful when it is supported by a "concise list of risk factors". Domestic violence death reviews have shown that in many cases, risk indicators were present and known, but not communicated to those who needed to know, such as victims, correctional agencies and treatment providers. (Kropp, 2008)

To communicate an identified level of risk, Hilton and Harris (2007) suggest that using a numerical description of risk, like an assessment score, is more effective than using non-numerical categories like 'low-risk' or 'high-risk'. Their research found that numerical scores communicated the level of risk more clearly than the non-numerical terms which were open to a certain degree of interpretation.

However, some researchers/commentators believe these numerical scores should be used in conjunction with other information. Websdale (2000) concluded that risk assessment scores should not substitute for listening to victims and learning about the complexities of their lives and circumstances.

> "Police officers who administer risk assessment tools ought not use these instead of working closely with women. Likewise probation officers and prosecutors ought not base their work with battered women on raw scores alone. Rather, raw assessment scores might be integrated into an overall non-judgmental strategy of advocacy and care." (Websdale, 2000)

Kropp (2008) also holds that risk assessments should be communicated to the victims so that they can understand their own risk factors and take precautions. Any limitations of the assessment should also be communicated.

6.4 Risk assessment by police

In the move towards police organisations using formal risk assessment approaches, many have chosen to use structured professional judgment including the Metropolitan Police Service in the UK, the Victorian State Police and the Tasmanian State Police in Australia, the Canadian Police, and to some extent the New Zealand Police.

Kropp (2004; cited in Perez Trujillo and Ross) suggests that police use of a formal or structured approach to risk assessment "can make police procedures and actions more consistent, more resistant to individual prejudices, and guide police decision-making to protect victims" (Perez Trujillo and Ross, 2008:457).

Websdale (2000) notes that one of the benefits of risk assessment instruments is that they expose practitioners like police to information about family violence that they may not otherwise have considered or been trained to think about.

However, formal structured approaches are not always implemented successfully. Research has shown that commonly, despite a risk assessment instrument containing valid questions or items for capturing recognised risk factors:

- the information is not collected accurately (Perez Trujillo and Ross, 2008; Grant, 2009)
- professionals/police choose not to use it, preferring instead their own judgment and experience (Perez Trujillo and Ross, 2008; Grant, 2009)
- professionals/police do not understand the concepts in the instrument (Perez Trujillo and Ross, 2008; Grant, 2009)
- frontline officers complain about the length of forms/increased paperwork (Metropolitan Police Service in the UK (Metropolitan Police Service, 2003); New Zealand Police (Wilde et al, 2006); and Grant, 2009)

In their study of 501 risk assessments made by police in Victoria, Australia, Perez Trujillo and Ross (2008) found that police mainly made decisions on future risk of domestic violence based on historic and situational factors. The most important factors for them were:

- historic—evidence of an escalation in the severity of incidents and the existence of previous incidents, and
- situational—the victim's level of fear.

The study showed that many of the variables on the risk assessment report used by Victorian Police did not play a significant role in their decisions about risk management strategies, and that some situational and contextual variables, which were not included in the report, may have played a significant role (such as the offender's demeanour).

The authors concluded that police judgments on level of risk influence their decisions around risk management and whether to apply for an intervention order for the offender. Decisions to charge an offender were influenced more by whether the offender had an existing order, or whether there were previous incidents, than by the perceived level of risk. (Perez Trujillo and Ross, 2008)

An important finding by Perez Trujillo and Ross (2008) highlighted that a victim's level of fear can play a role in police decisions about future risk in domestic violence cases—firstly in their assessment of the risk and secondly in their decisions around risk management strategies. In a study by Perez Trujillo and Ross (2008) police officers were more likely to predict a future incident of domestic violence when the victim was *very fearful* or *fearful*, than when the victim was *not fearful*.

They proposed that police officers' judgments are influenced by victims' fear because:

- police officers associate high levels of fear with:
    - legitimacy of assault accusations
    - severity of offender's behaviour, or
    - a history of abuse.
- police officers have a need to respond to the emotional distress that fear signals.

This police response to fear may need further attention, as the literature indicates that abused women underestimate their level of risk, and as a result may not express fear. As a consequence they may be perceived by police as being at less risk, and therefore not receive the assistance or protection they require. Perez Trujillo and Ross (2008) recommend further research be conducted on the link between victim's fear and the likelihood and severity of future harm.

The evaluation of the structured risk assessment approach (SPECSS) used by the Metropolitan Police Service in the UK (Humphreys et al, 2005) found that although it was received positively by officers and specialists, the tool was not considered to have made much difference to outcomes for police in terms of increasing arrests, gathering evidence or improving prosecutions. (Humphreys et al, 2005, and Holder, 2008)

Factors considered important (by Humphreys et al, 2005) to the implementation of a risk assessment approach by Police are:

- a prior audit by police of their capacity to: provide administration and data-entry support for the new information; support victims; and clarify roles for front-line or specialist police officers
- that the risk factors in the risk assessment tools are the right ones, including for different sub-groups
- the ability to manage change—as risk assessment will change over time and in response to different internal and external factors
- acknowledgment that the risk assessment approach will impact on costs, workload and information management
- data systems that interact across the processes of initial response, evidence gathering and data-entry
- risk management processes—just focusing on risk assessment is not enough.

Kropp (2008) states that those conducting risk assessments should have risk assessment training, understand the dynamics of family violence and be experienced in working with offenders and victims.

6.5 Risks of risk assessment

A number of researchers have commented on the “risk of risk assessment”.

In their evaluation of the UK Metropolitan Police’s risk assessment approach (SPECSS) Humphreys et al (2005), warned that risk assessment has potential risks:

- It could be used as a tool for allocating resources to only the most high risk cases.
- It could be used as a checklist procedure that could undermine the work done by police and other agencies to develop collaborative relationships and share information.
- It could provide too narrow a focus on only predicting future assault.
- Getting the content of risk assessment tools right is still a challenge, as the ‘science’ of risk assessment is still quite new.

A number of risks of risk assessment have been highlighted by Winter (2005):

- A reliance on actuarial tools could lead assessors to a false sense of security, when in fact none of these tools are 100% predictive, and they must be used with caution. Winter suggests that the tools should be used as an aide-memoire more than anything else, as the dynamics of intimate partner violence are not well enough understood for the results of these actuarial tests to be treated with certainty.
- The construction and use, by police organisations, of shortened versions of risk assessment tools is a concern, as once the tool is changed it no longer retains the validity that was attached to the full version. The subsequent implementation of the shorter tool by under-trained police officers further exacerbates the problem.
- Risk assessments that rely on the offender as the source of information should be used with caution as they can be distorted by how the offender chooses to respond.

6.6 Standards for risk assessment and management

Concern has been expressed in some of the literature about the lack of professional standards for minimum qualifications for people conducting assessments, best practices for applying assessments, training of assessors, and evaluation and monitoring of assessments (Borum, 1996; cited in Kropp, 2008).

In his review of intimate partner violence risk assessment and management, Kropp (2008) calls for “administrators, licensing bodies and government agencies to set and enforce standards for risk assessment practice” (p212).

Kropp (2008) proposes that at a minimum:

- people who undertake risk assessments should have:
  - "expertise and experience in interviewing and assessing offenders and victims", and
  - "considerable knowledge of the dynamics of spousal violence"
- "assessments should be completed with the assistance of risk assessment guidelines or tools that have some acceptance in the scientific and professional communities", and
- "training and monitoring should be implemented to fill any gaps in qualifications that might exist". (p213).

The need for standards has been recognised by various authorities, and standards have been developed in New Zealand and elsewhere.

6.6.1 Best practice standards/guidelines – New Zealand

Standards New Zealand (2006) has produced a comprehensive set of standards for agencies that deal with families and children—the NZS 8006:2006 New Zealand Standard: Screening, Risk Assessment and Intervention for Family Violence including Child Abuse and Neglect. The key 'best practice' messages from these standards, in relation to risk assessment are:

- The victim's knowledge and perceptions should be taken seriously.
- Risk is never static, can change rapidly, and requires ongoing assessment and review.
- Any level of disclosure or risk identified through risk assessment requires a safety plan.
- It is useful to have risk identified in categories, with the most serious category requiring the most immediate response.
- Risk assessment is a guide only—not absolute. It should not exclude anyone from accessing family violence services.

Prior to the development of the new standards by Standards New Zealand, the Ministry of Health published Family Violence Intervention Guidelines: Child and Partner Abuse (Fanslow, 2002). They include guidelines on undertaking risk assessment (danger and lethality assessment) primarily for use in the Health sector, but also relevant to other sectors dealing with victims and perpetrators of family violence. The guidelines include a range of questions for victims and perpetrators, largely based on risk factors from Campbell's Danger Assessment.

> "Assessment of the risk of homicide to the abused partner is necessary because of the strong association between prior abuse and later homicide for women. However, there are no absolute indicators that can determine the risk of homicide. …While there are no precise cut-off points … in general, the greater the number of factors that are present, the greater the safety risk is likely to be." (Fanslow, 2002, p45)

6.6.2 Best practice standards/guidelines – Internationally

The Australian state of Victoria has produced standards for risk assessment and management in the form of a framework. The framework is to encourage the development of an integrated family violence service system, with a common approach to risk assessment and management (The Department for Victorian Communities, 2007).

Guidelines developed for police in the UK distinguish between 'risk identification' and 'risk assessment', which, the guidelines state, should only be undertaken by suitably trained staff.

> "In this context the term ‘risk identification’ is used to refer to the identification of established risk factors in a domestic abuse case. This process can be undertaken by any police officer or member of police staff, and should be based upon an awareness of risk factors in domestic abuse cases. Risk identification does not include assessment which is the allocation of a risk level, for example, as high risk. This risk assessment should only be undertaken by staff who have received training in risk assessment and risk management. The risk identification process should be supervised by police domestic abuse coordinators. Any risk assessment is an ongoing process and should be subject to frequent monitoring." (National Policing Improvement Agency, 2008, p 35, to be used with 'Guidelines on identifying, assessing and managing risk in the context of policing domestic violence' Gamble, James — Association of Chief Police Officers (ACPO) (2005))

7 Conclusions

Our collective knowledge about the best way to undertake risk assessments in the field of family violence is still developing, despite there being research literature on the subject spanning two decades:

> "The body of literature on domestic violence risk assessment is growing rapidly, but there is still much to be done. Any agency considering the implementation of risk assessment protocols must therefore recognise that this is an imperfect enterprise." (Kropp, 2008)

The New Zealand Police is particularly interested in reducing serious harm and lethality (homicide) from family violence, and so the focus of this review was literature related to assessing the risk of reassault likely to cause serious harm or lethality. However, few risk assessment tools have been designed to assess lethality and few studies have attempted to identify risk factors specific to lethality.

The main risk assessment tools in the literature which were designed to assess the risk of lethality were not developed for use by frontline police. A new short version of the Danger Assessment[35] (the Lethality Assessment Screen for First Responders) has been developed for use by front line police, but is still undergoing validation.

This review therefore included the literature related to assessing the risk of family violence reassault generally. Of all the tools validated in the literature, the Violence Risk Appraisal Guide (VRAG)[36] had the greatest predictive accuracy for predicting family violence reassault, even though it was not developed specifically for that purpose.

Two risk assessment scales developed for frontline police have been widely validated in the literature—the Ontario Domestic Assault Risk Assessment (ODARA)[37] and the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER)[38]. The ODARA has consistently achieved a moderate degree of predictive accuracy, which is as well as most of the other tools that have been validated. The levels of predictive accuracy calculated for risk assessment tools in the literature are moderate at best, having ROC scores of between 0.6 and 0.7, which leaves considerable margins of error.

Key conclusions then from this review of the literature are:

- there is no one risk assessment tool that can be identified as 'the best'
- the choice of risk assessment tool depends on the purpose and context of the assessment, the target population and the role, skills and experience of the proposed assessor
- the adoption of a statistically validated risk assessment tool does not automatically ensure the accurate prediction of future serious or lethal violence, and
- risk assessment must be undertaken within a plan of risk management, including appropriate assessor training, risk communication, monitoring, victim safety planning and offender intervention.

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35 Campbell, 1986, cited Hanson, 2007
36 Harris, Rice & Quinsey, 1993
37 Hilton, Harris, Rice, Lang, Cormier & Lines, 2004, cited in Hilton & Harris, 2007
38 Kropp, Hart & Belfrage, 2005, cited in Kropp, 2008

Appendix A: Methodology used to undertake review

Literature search strategy

An electronic search was conducted using:

- the New Zealand Police Library online catalogue
- online journal /research databases ProQuest, Emerald, EBSCOhost (which incorporates Academic Search Premiere, SOCindex, and Business Source Premiere)
- The Australian Domestic and Family Violence Clearinghouse ( )
- The New Zealand Family Violence Clearinghouse ( )
- The UN Secretary Generals database on violence against women (http://webapps01.un.org/vawdatabase/searchDetail.action?measureId=23364&baseHREF=country&baseHREFId=948)
- MINCAVA electronic clearinghouse (Minnesota Center for Violence and Abuse – (http://www.mincava.umn.edu) and
- VAWnet (National (US) Online Resource Center on Violence Against Women – (http://www.vawnet.org/)
- NCJRS (National Criminal Justice Reference Service – http://www.ncjrs.gov/App/Publications/AlphaList.aspx)
- the internet search engine Google (www.google.co.nz)

The literature search predominately identified research from the United States, Canada, the United Kingdom, Australia and New Zealand.

- Identified references were accessed
    - on the internet (as above),
    - through the Royal New Zealand Police College library, and
    - through personal communication with New Zealand Police staff at Police National Headquarters.
- Index pages from the acquired literature provided further references.

Published and unpublished studies were reviewed.

The quality of studies was not assessed as part of this review.

Appendix B: NZ Police risk assessment instruments

Family Violence Investigation Report (FVIR)

B1

B2

B3

Family Violence Investigation Report (FVIR): B1

B1	RISK ASSESSMENT TOOL 1
RISK ASSESSMENT QUESTIONS FOR ADULT VICTIMS	
1. How frequently and seriously does he/she intimidate, threaten or injure you or other family members?	
2. Describe the most frightening/worst incident of violence involving him/her:	
3. How has his/her past behaviour impacted on you and your children's feelings of personal safety?	
IMPORTANT: DISCUSS ANY SAFETY ISSUES AND YOUR RISK ASSESSMENT WITH THE VICTIM AT THE TIME	

Family Violence Investigation Report (FVIR): B2

B2	RISK ASSESSMENT TOOL 2
IDENTIFYING RED FLAGS - RISK FACTORS	
Investigators should consider the following **RED FLAGS** to alert them that this situation may be **HIGH RISK** and that someone may be at risk of dying or suffering serious harm. Indicate all those **RED FLAGS** (Risk Factors) that are present:	
☐ No ☐ Yes	The offender is **obsessed** with, **dependent** upon, or is **stalking** the victim.
☐ No ☐ Yes	**Recent separation**, issue of a **Court Order**, or **divorce** *AND* is responding in a **dangerous manner.**
☐ No ☐ Yes	The **victim** believes the offender could **injure or kill** her / him.
☐ No ☐ Yes	The offender has **strangled** or attempted to strangle the victim.
☐ No ☐ Yes	There is a **history of Family Violence** and it is getting **more severe** and / or is **increasing in frequency.**
☐ No ☐ Yes	The offender has threatened / attempted to commit **suicide**, or to **kill the victim**, **children or other family members.**
☐ No ☐ Yes	The offender has **access to weapons**, particularly firearms and has used, or threatened to use them. They may have **convictions** involving weapons (e.g. knives / firearms).
☐ No ☐ Yes	The offender has **easy access** to the victim, children or other family members.
☐ No ☐ Yes	**Children** are in the **home** when the violence occured or have **been hurt** or **threatened** in family violence situations.
☐ No ☐ Yes	Incidents of **animal abuse** by the offender.
☐ No ☐ Yes	The offender has a history **of alcohol or drug problems.**
☐ No ☐ Yes	The offender has a history of **violent behaviour** against non-family members.
Describe any other factors that you consider could contribute to risk for any parties involved:	
IMPORTANT: DISCUSS ANY SAFETY ISSUES AND YOUR RISK ASSESSMENT WITH THE VICTIM AT THE TIME	

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Section **B2**

Family Violence Investigation Report (FVIR): B3

B3 — RISK ASSESSMENT TOOL 3

RISK & LETHALITY ASSESSMENT WORKSHEET

This Risk Assessment is for the relationship between:

Names of Parties: Date:

			CIRCLE IF TRUE	
A	1	This is the first or only serious act of Family Violence. (Ask about non-reported cases)	1	
	2	Offender has no other criminal history.	1	
	3	Offender has stable employment.	1	
	4	Offender does not have drug or alcohol problem.	1	
	5	Offender's relationship with the victim appears stable.	1	
	6	Offender takes responsibility for their abusiveness.	1	
	7	Offender is co-operative with Police; Courts; Probation.	1	
	8	Offender has never threatened victim.	1	
	9	Offender has never breached a Protection Order.	1	
	10	Offender has no history of suicide attempts.	1	
	11	Offender has no history of serious depression.	1	
	12	Offender has no diagnosis of mental illness.	1	
	13	Offender is in reasonably good health.	1	
	14	Offender has no weapons in their possession or proximity.	1	
	15	Offender is not on psychotropic* medication. (May have an altering effect on perception, emotion, or behaviour)	1	**TOTAL A**
B	16	Victim is afraid of the offender.	2	
	17	Offender has threatened the victim or children in the past.	2	
	18	Offender is very jealous or possessive about the victim.	2	
	19	Offender has committed other crimes of violence.	2	
	20	Offender has significant drug or alcohol problems.	2	
	21	Offender has seriously hurt or strangled the victim.	2	
	22	Offender possesses or is in proximity to weapons.	2	
	23	Offender appears very bitter toward the victim.	2	**TOTAL B**
C	24	Offender has threatened to kill/ injure the victim, children or themself.	3	
	25	Offender has stalked the victim or others in the past.	3	
	26	Offender has breached a Protection Order in the past.	3	
	27	Offender has homicide / manslaughter arrests on record.	3	
	28	Offender has sexual violence / rape arrests on record.	3	
	29	Offender has a mental disorder / illness.	3	
	30	Victim is terrified of the offender.	3	
	31	Victim has recently separated / relationship breakdown.	3	**TOTAL C**

INTERPRETATION:

-15 to +1	**NO** apparent risk
+2 to +10	**LOW** risk
+11 to +16	**MODERATE** risk - Review file
+17 to +23	**HIGH** risk - Investigate further, early follow-up
+24 and Over	**EXTREME** risk - Urgent follow-up

REMEMBER If you have any doubt, treat as HIGH RISK.

TOTAL B + C =

DEDUCT TOTAL A:

RISK SCORE =

DISCUSS SAFETY ISSUES AND RISK ASSESSMENT WITH THE VICTIM AT THE TIME

THE RISK SCORE APPLIES TO ALL PARTIES INCLUDING CHILDREN FOR NIA ENTRY

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Section **B3**

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