A REVIEW OF RISK ASSESSMENT TOOLS AND RISK FACTORS RELEVANT TO TERRORISM AND RADICALISATION

PUBLISHED 2021

REDUCING
SERIOUS HARM

CONTENTS

ACKNOWLEDGEMENT

LIST OF ACRONYMS

1. INTRODUCTION

2. AIMS OF REVIEW

3. METHOD

4. TERRORISM RISK ASSESSMENT TOOLS AND FRAMEWORKS

5. TOOLS OR FRAMEWORKS FOCUSED ON PREVENTING RADICALISATION

6. OTHER FRAMEWORKS

7. RISK ASSESSMENT SUMMARY

8. RISK FACTORS

9. RISK FACTOR SUMMARY

10. LIMITATIONS OF REVIEW

11. IMPLICATIONS FOR PRACTICE

12. REFERENCES

ACKNOWLEDGEMENT

The Risk Management Authority (RMA) would like to acknowledge the contribution of members of the Development team in producing this review.

In addition to colleauges in the Effective Practice team for reviewing and providing feedback on the review, as well as sharing it with external partners.

KATIE BARR (RESEARCH OFFICER)

Katie Barr joined the RMA in 2020 as a Research Officer. Previously, Katie was a qualified Social Worker and Mental Health Officer, working in both Canada and Scotland. Katie has worked in areas relating to mental health, sexual health and domestic abuse.

RACHEL WEBB (DEVELOPMENT LEAD)

Rachel joined the RMA in 2015 as an Order for Lifelong Restriction (OLR) Case Worker after graduating with an MSc in Forensic Psychology. Rachel is currently the Development Lead where she has oversight and management of development projects in relation to the RMA's strategic aims. Rachel has published work on the OLR, Internet Offending, Trauma and the use of the LS/CMI in Scotland.

GEOFF TORDZRO-TAYLOR (HEAD OF DEVELOPMENT)

Geoff joined the RMA in 2017, working on training initiatives and standards and guidelines. He qualified as a Chartered Psychologist and Registered Forensic Psychologist in 2019. He is currently the Head of Development where he has strategic responsibility for research, development and evaluation functions.

LIST OF ACRONYMS

CVE - Countering violent extremism

ERG22+ - Extremism Risk Guidelines 22+

ERS - Extremism Risk Screening

FRAME - Framework for Risk Assessment, Management and Evaluation

HMPPS - Her Majesty's Prison and Probation Service

IR-46 - Islamic Radicalisation – 46

ISIS - Islamic State in Iraq and Syria

IVP - Identifying Vulnerable People

MLG - Multi-Level Guidelines

NOMS - National Offender Management Service

OASys - Offender Assessment System

RATED - Risk Assessment Tools Evaluation Directory

RMA - Risk Management Authority

SPJ - Structured Professional Judgement

SQAT - Significant Quest Assessment Test

STS - Serious Terrorism Sentence

TRAP-18 - Terrorist Radicalisation Assessment Protocol – 18

VAF - Vulnerability Assessment Framework

VEO - Violent extremist offenders

VERA - Violent Extremism Risk Assessment

Terrorism is one of the most serious challenges facing the world today, with a number of countries having recently experienced an increase in terrorism
(Wolfowicz, Litmanovitz, Weisburd & Hasisi, 2020)

1. INTRODUCTION

1. Terrorism is one of the most serious challenges facing the world today, with a number of countries having recently experienced an increase in terrorism (Wolfowicz, Litmanovitz, Weisburd & Hasisi, 2020). Terrorism has also proved difficult to define and as such, there is no international agreement regarding a universal meaning of 'terrorism' (Pressman & Flockton, 2012). Whilst different definitions have been proposed, it is challenging to define something that can take different forms with varying aims and methods (Beardsley & Beech, 2013). Greene (2017) suggests that terrorism has fluctuated in meaning as its definition has reflected ideas related to the time and location to which it is being applied.

2. Whilst there is no agreed or accepted universal definition of terrorism, it has been described as political violence directed against the state (Greene, 2017). The UK definition of 'terrorism' is outlined in the Terrorism Act 2000. It defines terrorism as an "*action that endangers or causes serious violence to a person, serious damage to property, endangerment of life, serious risk to health or public safety; or seriously interferes or disrupts an electronic system*". In addition the use or threat of action must be designed to influence the government or to intimidate the public for the purpose of advancing a political, religious or ideological cause (TACT, 2000). Essentially, this is what distinguishes terrorism from non-terrorists acts/threats.

3. In the Independent Review of statutory Multi-Agency Public Protection Arrangements, Hall (2020) notes that the challenges in identifying whether an individual is ideologically driven or not are well known and says 'definitional debate over what is terrorism should therefore be avoided' (pp. 35). In relation to definitions, Lloyd and Dean (2015) noted that it can be difficult to define concepts like terrorism and extremism without criminalising political beliefs or dissent; particularly in democratic societies where freedom of thought is seen to be a human right. However, terminology and definitions are important. Differing terms, definitions or interpretations can make meaningful collaboration more difficult, lead to issues in understanding the language being used, and may make research incomparable. As such it is perhaps unsurprising that is has been proposed that discussions regarding terrorism, radicalisation or extremism can be impacted upon due to a number of possible definitions or interpretations of those terms (Proctor & Prior, 2019).

RADICALISATION

4. Radicalisation has been described as being as difficult to define as terrorism and as such definitions have been contested (Nesser-Edine, Garnham, Agostino & Caluya, 2011). For example, definitions of radicalisation may be so broad as to criminalise legitimate political opinions that deviate from the social norm (Nesser-Edine et al., 2011). Within the Revised Prevent Duty Guidance for England and Wales, radicalisation is referred to as a *"process where an individual comes to support terrorism and extremist ideologies associated with terrorist groups"* (Home Office, 2019, pg. 21). The Anti-Radicalisation report produced by Proctor and Prior (2019) outlined that not all definitions or perceptions of radicalisation relate to terrorism and that not all forms of radicalisation or radical ideas are detrimental in themselves.

EXTREMISM

5. Extremism is another term subject to differing definitions and interpretations. Whilst there is no definition of extremism in UK law, numerous definitions have been used by the government and academia (Commission for Countering Extremism, 2018). Following the 2011 Revised Prevent strategy, the government has defined extremism as *''the vocal or active opposition to our shared values. These include democracy and the rule of law, mutual respect and tolerance of other faiths and beliefs. We also consider calling for the death of our armed forces either in the UK or overseas to be extremism."* (Home Office, 2015).

6. The Counter-Extremism strategy was published in 2015 (HM Government, 2015). Through the strategy, the Government commits to addressing all the harms extremism can cause, not just where it may lead to terrorism.

PREVALENCE

7. Europol produces an annual Terrorism Situation and Trend report, which offers statistics relating to terrorism in the European Union (EU). They report on various types of terrorism, categorised by source of motivation although it is noted that some groups have a mixture of motivating ideologies. The types of terrorism include: jihadist terrorism, ethno-nationalist and separatist terrorism, left-wing and anarchist terrorism, right-wing terrorism, and single issue terrorism. The 2019 Terrorism Situation and Trend Report indicated a decrease in the overall number of completed, failed and foiled terrorists attacks in 2019 compared to previous years (Europol, 2019). There were 119 completed, failed and foiled terrorist attacks in 2019 reported by 13 EU member stages. Nearly half of these attacks were related to ethno-nationalist and separatist terrorism, with approximately a fifth each being attributed to jihadist terrorism and left-wing terrorism. In terms of impact, 10 people died and 27 were injured from EU terrorism attacks; with all the deaths, and all but one of the injuries, being attributed to jihadist terrorism.

8. Consistent with publications in previous years, ethno-nationalist and separatist terrorism represented the largest proportion of all attacks (57 of 119), though 2019 saw a decrease from 2018 (83 attacks). Similarly, all fatalities from terrorist attacks were the result of Jihadist attacks. When considering arrests for terrorism offences (occurring between 2015 and 2019) the report indicates a fairly consistent frequency across these years. Over half of these related to jihadist terrorism.

9. Similarly, the Global Terrorism Index (GTI) is a report produced by the Institute for Economics & Peace, which provides an overview of global trends and patterns in relation to terrorism. In the most recent publication, it detailed that deaths from terrorism fell for the fifth consecutive year in 2019 and are 59% lower than the peak in 2014 (GTI, 2020). It is noted that as the level of terrorism has fallen in areas like the Middle East and South Asia, new terrorist threats are emerging such as the emergence of far right terrorism in Western Europe and North America (GTI, 2020). This is illustrated somewhat by the fact that in 2010 there was one recorded far right terrorist attack in the West, with an increase to 49 attacks in 2019 (GTI, 2020).

10. In terms of categorising terrorism offences, Silke (2014) has also proposed a number of different terrorist groups and categories – "*referring to 'big categories' like Religious, Revolutionary, Anarchist and Nationalist/Separatist – but suggesting that they could likely be split and divided into hundreds or thousands of sub-categories*" (pg. 2). The author proposes that just as groups differ so to do the individuals; hence, there is no single terrorist profile.

DEVELOPMENTS IN THE UK

11. The UK counter-terrorism strategy, CONTEST, was introduced in 2003 and was most recently revised in 2018. The strategy is comprised of four strands: Pursue, Prevent, Protect and Prepare. The Prevent strategy played a more minor role in comparison to the other strands until the terrorist attacks in London in 2005 (Qurashi, 2018). Prevent can be described as having three core objectives: responding to the ideological challenge of terrorism, preventing individuals from being drawn into terrorism and offering advice and support in addition to working with sectors where there may be risks of radicalisation (Home Office, 2011a). CONTEST addresses all forms of terrorism that affect the UK and overseas interests except for Northern Ireland related terrorism that occurs within Northern Ireland (Hall, 2020).

12. At the time of writing this review, the Counter-Terrorism and Sentencing Bill was at the Committee Stage in the House of Lords. The Bill is described as aiming to strengthen every stage in the process of dealing with individuals involved in terrorism offences across the UK. The Bill introduces the Serious Terrorism Sentence (STS) for the most serious and dangerous individuals convicted of terrorism offences. The sentence requires a minimum of 14 years to be spent in custody with an extended licence period of up to 25 years. In Scotland, the Order for Lifelong Restriction (OLR) will be available as an alternative to the STS where the criteria for making an OLR are met. In an OLR case to which the legislation applies, the punishment part must be fixed at a minimum of 14 years – this is to mirror the provisions for the STS. It thus requires a radically different approach to the setting of punishment parts than in the majority of instances where individuals have been sentenced to an OLR.

13. The usual procedure for calculating a punishment part is complex. It requires the sentencing judge to select the determinate sentence that the court would have imposed were an OLR not made. Then they strip out the portion of that sentence attributable to the need to protect the public – this is already accounted for by an indeterminate sentence since release may only take place when the risk to the public is manageable in the community. The resultant figure will then ordinarily be halved to reflect the point at which a long determinate sentence prisoner would be eligible to apply for parole. In dispensing completely with this process the legislation will result in punishment parts for individuals convicted of terrorism offences that are far longer than those typically associated with the OLR,[1] and not fixed according to judicial assessments of culpability or having regard to the OLR's primary function as a risk management tool.

14. In addition to this, sentence discounts for guilty pleas accepted by the Crown will be capped at one fifth of the headline sentence, in contrast to one third which is the norm for a guilty plea tendered at the earliest opportunity. The legislation will also extend the classes of terrorist offence which exclude individuals from applying for early release from prison. The Impact Assessment (IA) commissioned by the Ministry of Justice (2020) proposed that whilst longer time spent in custody would give those convicted of terrorist offences more opportunity to engage in relevant treatment programmes, there "*is a risk of offenders radicalising others during their stays in custody*" (pp. 11). All of which serves to underscore the importance of risk assessment.

[1] The longest OLR punishment part on record is 16 years, but the average is around 5 to 6 years.

RISK ASSESSMENT

15. As countries have endeavoured to find successful ways of preventing terrorist attacks, risk assessment tools have become central instruments of counter-terrorism (Knudsen, 2020). Risk assessment has evolved over the years through several approaches including unstructured clinical judgement, actuarial approaches and structured professional judgment (RMA, 2011; RMA, 2019).

16. **Unstructured clinical judgement**, sometimes referred to as unaided professional judgement, relies on the knowledge and experience of the assessor. The lack of structure to decision making introduces subjectivity and decisions lack transparency (Copeland & Marsden, 2020). Within this approach, the method for identifying and quantifying risk is not often clear and the practitioner essentially forms an unguided view of risk and individual context (Hanson, 1998). Such an approach has been found to be a poor predictor of recidivism (e.g. Andrews, Bonta & Wormith, 1998; Grove & Meehl, 1996) with particularly low validity (Hart, 1998). The lack of structure to the approach means that it raises concerns around how the assessor has arrived at a decision (Meehl, 1954) with Grove and Meehl (1996) describing this approach as relying on "*in the head, impressionistic, subjective conclusion, reached (somehow) by a human clinical judge*" (pg. 1).

17. **Actuarial approaches** are highly prescriptive where indicators are scored and rated to produce an overall prediction of risk (Sarma, 2017). Tools using this approach are based on empirically established relationships between variables and criteria (Borum, 1996). The actuarial approach has been shown to be a better predictor than the clinical approach (e.g. Borum, Otto, & Golding, 1993; Garb, 1994). It provides a more consistent approach to assessment due to the fact decisions are based on rigid and fixed rules (Meehl, 1996). The main criticism that has been levelled at this approach is that such rigidity can come at the cost of context and individuality (Hart, Michie & Cooke, 2007).

18. **Structured professional judgement (SPJ)** could be described as combining elements of the above approaches. It offers structure to aid decision making but also requires the expertise of the assessor (Copeland & Marsden, 2020). The approach encompasses several steps including gathering all relevant information, assessing the presence and relevance of risk factors, completing a case formulation, undertaking scenario planning and producing an overall judgement regarding risk (Copeland & Marsden, 2020). SPJ approaches aim to promote consistency but with the flexibility to handle diversity, individuality and assessment context (Hart, 1998). Existing SPJ tools focus on certain offence types such as sexual offences or violent offences and the assessor will identify and organise the relevant risk factors to explain and analyse an individual's risk.

19. These approaches have also been referred to as being discretionary or non-discretionary approaches. Non-discretionary approaches are prescriptive in nature and are represented by the actuarial approach to risk assessment. Whereas discretionary approaches incorporate the use of structured clinical guidelines linking practice to research such as the SPJ approach to risk assessment (Logan & Lloyd, 2019). The SPJ approach has become the principal method for conducting risk assessment in this field, Logan and Lloyd (2019) note that it offers the most potential for achieving evidence based, proportionate, transparent and accountable practice. As we have an understanding of the underpinnings of the SPJ approach, the task is to use the approach to inform and develop good practice in the violent extremism field (Logan & Lloyd, 2019).

20. It should be noted that there is a continuum of SPJ approaches ranging from appraising risk and protective factors through to a fuller approach incorporating formulation and scenario planning (Lloyd, 2019). It is also important to note that structured professional judgement and decision-making are important components of all risk assessment practice regardless of the tool being used or the background of the risk assessor (RMA, 2011).

21. More recently the literature has started to focus specifically on the role and importance of formulation within risk assessment (e.g. Hart & Logan, 2011; Logan, 2014; McMurran & Bruford, 2016). This is still an SPJ approach but with particular emphasis on the role of formulation as a central aspect of the assessment; one that 'bridges' the risk assessment to risk management planning. Johnstone and Dallos (2013) described formulation as a process of testing hypotheses, reflection, linking assessment to risk management, seeking feedback, and ongoing revision. Whereas Logan (2014) specifically discusses the product of a narrative formulation within a risk assessment which should tell a meaningful story of the individual.

CHALLENGES TO RISK ASSESSMENT OF TERRORISM

22. Monahan (2012) explored both the conceptual and methodological challenges that need to be overcome in order for terrorism risk assessment to make the same progress as risk assessment of other offence types such as violence. Monahan (2012) outlines four primary challenges –

    1. Risk factors for one type of terrorism may not be risk factors for another type, underscoring the importance of achieving clarity on exactly what is being assessed.

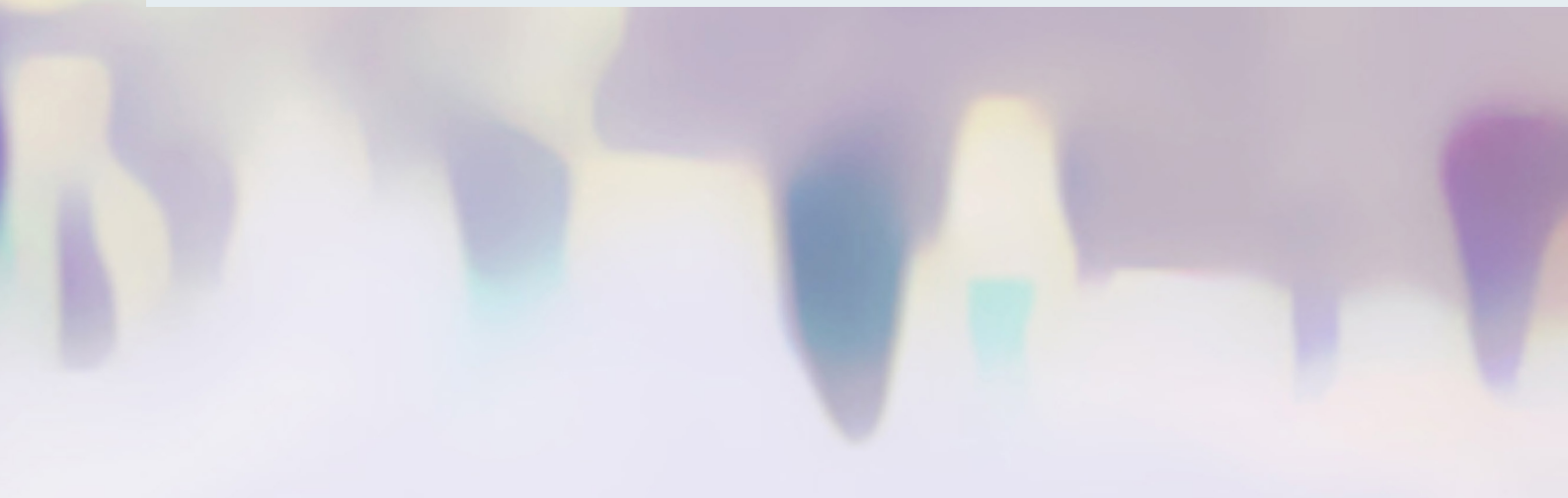
    2. The approach taken to risk assessment in addition to the development of risk instruments. It would appear that risk factors related to violence are not risk factors for terrorism therefore existing risk instruments for violence are unlikely to be applicable for assessing terrorism.

    3. There needs to be a better understanding of risk factors related to terrorism as this is crucial for risk assessment.

    4. Validation of terrorism-related risk instruments are challenging as it is unlikely that any such tool can be validated prospectively. It would be extremely difficult to find a large enough sample to assess and then follow up on factors like new offences and community release; to then determine if the tool can distinguish between low and high risk of terrorism offences. An added complication is the cost of a false negative prediction (i.e. concluding low risk when they go on to commit a violent act) – whilst high in instances of general and sexual violence – could be potentially catastrophic in the case of terrorism.

Risk assessment has evolved over the years through several approaches including unstructured clinical judgement, actuarial approaches and structured professional judgment

(RMA, 2011; RMA, 2019)



23. Monahan (2012, p. 14) details that "*the four issues concern the heterogeneity of what is meant by "terrorism," the optimal degree of structuring a risk assessment procedure, the need for more robust risk factors, and the development of an infrastructure for validating these risk factors*." They understandably convey that it would not be feasible in any real national security context to prospectively validate an assessment tool for individual risk of terrorism. In summary this is due to there being a small relevant sample size, the improbability of being able to release a large portion of said individuals (including those that have been scored as 'high' risk of terrorism), and the necessity to then have to follow up through monitoring to ascertain which individuals commit terrorist acts and which do not.

24. Likewise, Sarma (2017) also outlined challenges, particularly in relation to assessing the risk of those who have not been convicted of a terrorist offence but have come to the attention of authorities due to concerns. Similar to Monahan, it is emphasised that terrorism takes differing forms and there are variances in trajectories thereby risk factors for one form of terrorism may not have predictive value for another form of terrorism. Another challenge is the identification of risk factors as the evidence base is small in comparison to other subject areas.

25. To counter the challenges, Sarma (2017) proposes six guiding principles in relation to terrorism risk assessment –

    1. *Actuarial approaches are not suitable*. This is because they rely on prediction ability and require a clear set of risk factors that validly predict a specified outcome. In relation to terrorism this is a difficult requirement to meet. Adding this to the issue of low base rates means actuarial approaches pose significant practical and ethical problems.

    2. *Use SPJ approaches and case formulation*. Sarma details that an SPJ approach is not reliant on statistical predictions and group estimates; instead placing emphasis on developing an understanding of meaning and context in relation to an individual's risk. Case formulation is placed at the heart of this approach in an attempt to develop said individual meaning. It balances identifying those factors that are both present and relevant within an individual's assessment.

    3. *The assessment must be clear on what is being assessed*. Sarma suggests a holistic approach of first considering whether an individual is at risk of becoming involved in terrorism, and if so, then the assessment should consider the potential roles and behaviours that the individual might take up.

    4. *Use of established theories*. In the absence of a strong empirical base, established theories should be used to support and guide understanding (e.g. Gudjonsson, 2009; Herrington & Roberts, 2012); such as social movement theory (e.g. Dalgaard-Nielsen, 2008), social cognitive theory (e.g. Ginges, 2009) and social ecology model (e.g. Centers for Disease Control and Prevention, 2015).

    5. *There is a need for supervision and training*. Training can provide familiarity, opportunity for practice and enhance confidence (Borum, 1996; Monahan, 1993; Storey, Gibas, Reeves & Hart, 2011). Supervision of staff means there is ongoing support for those completing assessments and can provide a safe environment to discuss hypotheses and decisions (DeAngelis, 2014).

    6. *Risk assessment offers more benefits than solely case identification*. Sarma and Pelzer (2015) found that other benefits of risk assessment related to having an audit trail for decisions, it could support and enhance new evaluators, it establishes the need for sufficient information to make a defensible decision, it could form a shared multi-agency approach, and it should support risk-based communication.

26. Silke (2014) expanded on the challenges relating to the diversity in terrorism typologies. They detailed several issues that should be considered in relation to the risk assessment of terrorists and extremists in prison. They indicated that not all individuals involved in terrorism and extremism in prison are the same and proposed four groupings:

    - *Radicalised extremists* who were radicalised prior to being imprisoned;
    - *Affiliates* who were convicted of terrorist involvement but were not radicalised;
    - *Prison recruits* which are individuals radicalised in prison and lastly;
    - *Vulnerables*, which are those who are vulnerable to being radicalised.

27. Silke (2014) specifically commented that tools for general or violent offending such as HCR-20 are not appropriate with this population and their use should be avoided. It should also be noted that the authors of such tools (e.g. Hart, 2010) have themselves indicated significant qualifications and reservations regarding the use with terrorism. Other publications have commented that issues relate to the initial design of such tools not being intended for, and therefore poorly fitting, individuals in prison convicted of terrorist and extremist offences (Dernevik et al., 2009; Pressman & Flockton, 2012).

28. More recently, Logan and Lloyd (2019) aimed to examine how the assessment and management of the risk of violent extremism could be defined. They reviewed what guidance was available and considered how the field could be further developed. The authors noted the need for a distinction between assessing, understanding and managing the risk of violent extremism and managing violence risk in other areas. The subject area has a number of unique features and challenges, which distinguish it from risk assessment and management in other areas. Understanding and managing the risk or threat of violence by extremists is complex because of the diverse and harmful outcomes in addition to the variance in what individuals are prepared to do to achieve such outcomes.

29. Identifying what guidance is available for practitioners in terms of the assessment and management of the risk of violent extremism is somewhat complicated as development takes place in two parallel domains. Logan and Lloyd (2019) detail that guidance may be published in open sources such as a peer reviewed journal or it may not be made publically available such as guidance drafted by law enforcement and security agencies. This has been proposed to create two tiers of practice, one is in the public domain therefore subject to review and scrutiny and the other is not.

30. In questioning how the quality of guidelines can be determined, Logan and Lloyd (2019) turn to the Framework for Risk Assessment and Management Evaluation (FRAME) (Risk Management Authority, 2011). FRAME was produced in collaboration with partners and sets out the standards of risk practice. FRAME provides guidance on how information should be identified, analysed, evaluated and communicated and aims to bring consistency to the way in which this is done. Logan and Lloyd (2019) detail that the field needs a clear set of standards of practice and that the FRAME criteria should be considered in terms of their applicability to this area.[2] Practice standards are important as the absence of such means practice may vary as will the quality of assessments and risk management plans (Logan & Lloyd, 2019).

[2] FRAME (RMA, 2011) proposes a tiered and proportionate system of risk assessment and management whereby the more complex and concerning cases would receive more in depth assessment and management. It also contains 5 practice standards with detailed guidelines; risk assessment, planning and responding to change, risk management measures, partnership-working, and quality assurance.

2. AIMS OF REVIEW

31. It is well established that terrorism is extremely rare when compared to other forms of violent crime which means the number of individuals convicted of terrorism are small and fewer still are caught, convicted and released (Monahan, 2012; RTI International, 2018). Correspondingly, Hall (2020) details that the number of individual convicted of terrorism offences is minimal in comparison to the number of individuals convicted of sexual offences and managed in the community or the number of individuals who have come to the attention of MI5 as posing a terrorist risk but have no convictions. As there are different types of terrorism and no single profile of a terrorist, the harm caused will vary. However completed terrorist attacks clearly evidence the degree of harm that can be inflicted and could be described as catastrophic when considering the potential for multiple fatalities.

32. Assessing the risk posed by terrorists and violent extremists is important, as it cannot be assumed that all terrorists pose the same risk of serious harm (Hall, 2020). Understanding the individual nature of risk is crucial to responding proportionately and for building the foundations of a defensible and evidence-based risk management approach. This is one of the concerns in relation to the Order for Lifelong Restriction (OLR) should it introduce non-individualised punishment parts for terrorism offences, as the custodial element of the sentence (i.e. punishment part) must be fixed at a minimum of 14 years.

33. The purpose of the review was to examine the literature relating to risk assessment as well as risk factors for terrorism, extremism and radicalisation. As such, the review aimed to address the following:

    - What evidence exists on the reliability and validity of the available risk assessment tools used to assess risk of terrorism, radicalisation and extremism?

    - What risk factors have been identified as related to terrorism, radicalisation and extremism?

Understanding the individual nature of risk is crucial to responding proportionately and for building the foundations of a defensible and evidence-based risk management approach.

3. METHODOLOGY

34. This review draws on information from a variety of sources, including a number retrieved from the 'grey' literature.[3] It should be noted that wherever 'the literature' is mentioned throughout this review, it refers collectively to 'conventional' and grey literature sources. The vast majority of (if not all) sources utilised are either Open Access and/or available through Research Gate, Academia.edu or University Repositories. A link to all such sources has been provided in the Reference List.

35. The Risk Management Authority (RMA) provide a Risk Assessment Tools Evaluation Directory (RATED). The directory is intended to assist practitioners in selecting and applying risk assessment tools. RATED is considered an ongoing project that is continuously updated and revised. Relevant tool entries (TRAP-18 and VERA-2R) on RATED were also reviewed and where applicable, a hyperlink to the RATED entry has been provided.

36. To identify the information sources utilised, a two-pronged approach was taken. Searches were initially conducted within academic databases/search engines (i.e., PsycINFO, Social Services Abstract and Google Scholar), journal publishers' websites and the NHS Education for Scotland and Social Services Knowledge Scotland library facility. Search terms were devised, refined and briefly tested by searching databases. Boolean operators and truncation were utilised as appropriate to target the search. A similar search was conducted within Google to identify grey literature.

37. A 'snowballing' type approach was additionally adopted: both through the retrieval of relevant resources cited within sources already retrieved and through searching for other papers which had cited resources already obtained, using the 'Cited by' function within Google Scholar. Language and date restrictions were applied to limit the search to English language articles published between 1990 and 2020.

38. Whilst this is a standalone review, it was undertaken at the same time as a review examining risk assessment approaches relevant to terrorism and radicalisation.

39. The initial database search yielded 47 articles and 10 articles were manually retrieved resulting in a total of 57 articles. The additional articles were identified through analysing reference sections and a manual search. Applying the inclusion and exclusion criteria, records that did not meet the inclusion criteria were excluded which resulted in a final sample of 40 articles.

40. Studies were eligible for inclusion if they examined the process of risk assessment, risk assessment tools or risk factors related to terrorism, radicalisation or extremism. As this was conducted as a rapid evidence review time constraints meant there was no quality appraisal of the articles or methodological quality check.

[3] That is, literature produced outside of standard academic and commercial research and publishing institutions. Examples include some Government papers, working papers, organisational reports etc.

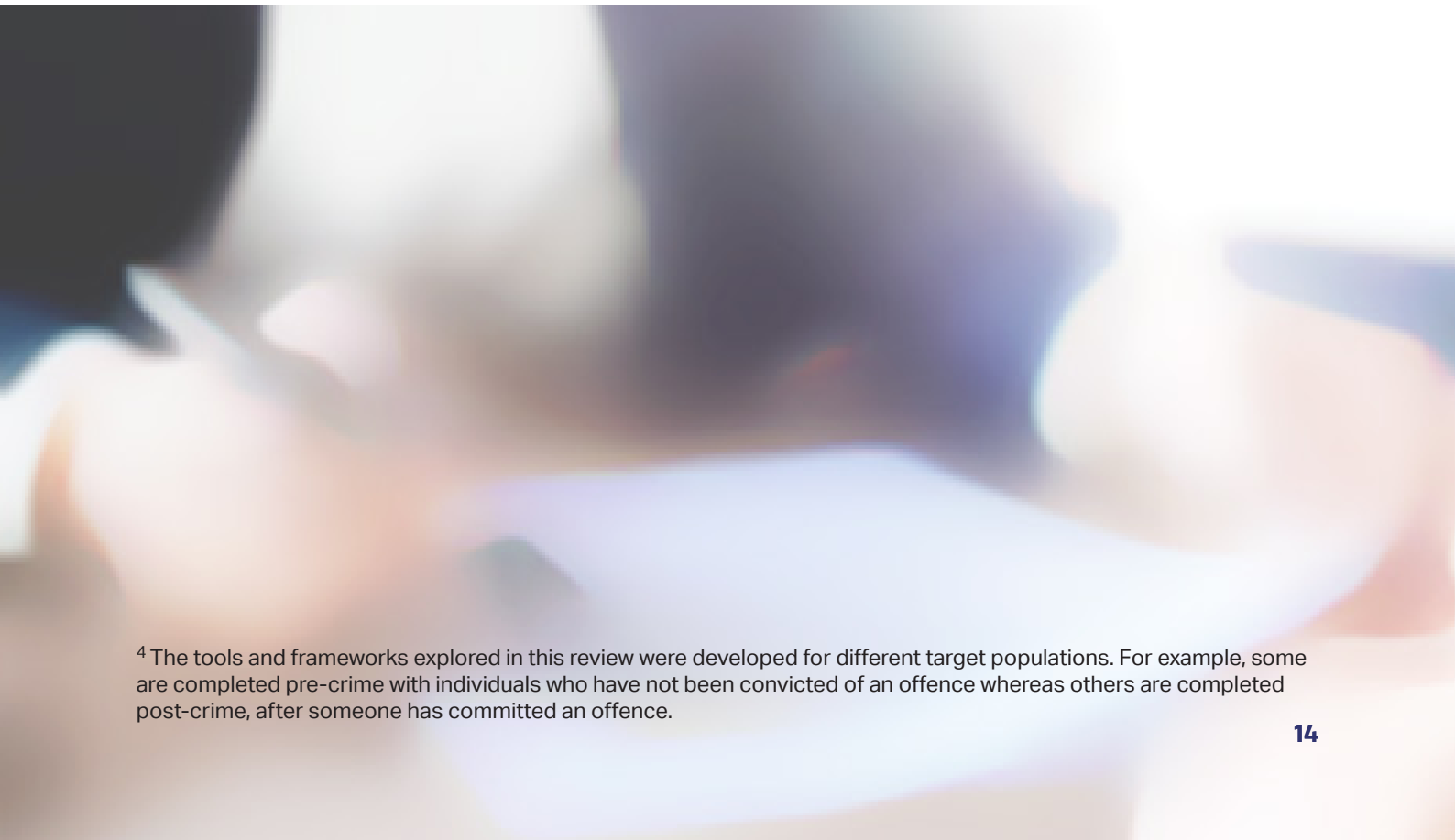
4. TERRORISM RISK ASSESSMENT TOOLS AND FRAMEWORKS

41. Risk assessment tools offer a means of examining the likelihood of harm based on the available information (RTI International, 2018). There are few risk assessment guidelines specific to terrorism, which differentiate it from other types of violent criminal behaviour however there are differences which suggests current methods for assessing risk of violence may not be applicable to assessing the risk of violent extremism (Beardsley & Beech, 2013; Pressman, 2009). Borum (2015) noted that SPJ tools for violence adopt a linear cumulative risk model meaning the more risk factors present, the greater the risk of violence, which does not hold true for extremist violence (RTI International, 2018). However it should be noted that this cumulative model does not hold true for more recent versions of tools like the HCR-20 (i.e. HCR-20v3; Douglas et al., 2014). More factors being present does not necessarily mean a greater risk of violence; with more emphasis placed on the relevance of particular risk factors to an individual and the communication of this through a risk formulation.

42. However it has been argued that existing tools for risk of violence extremism are not appropriate for assessing the risk of violent extremism as they do not assess background and motivations of ideologically motivated individual (RTI International, 2018). This has resulted in the development of tools and frameworks, which are specific to terrorism risk.

43. The risk assessment tools and frameworks examined in this section were developed through different means, to serve differing purposes and for use with different populations[4] (Lloyd, 2019). Some of the tools are centred on assessing the risk posed by those who have already been convicted of terrorist offences whereas others focuses on assessing the risk of a possible first terrorist offence or the risk of someone becoming radicalised.

44. At the time of publication, Logan and Lloyd (2019) noted that there were four examples of risk assessment and management guidance underpinned by the SPJ approach, which includes the VERA-2R, the ERG22+, the Multi-Level Guidelines (MLG) and the TRAP-18. All of which and more will be discussed in detail.



[4] The tools and frameworks explored in this review were developed for different target populations. For example, some are completed pre-crime with individuals who have not been convicted of an offence whereas others are completed post-crime, after someone has committed an offence.

VIOLENT EXTREMISM RISK ASSESSMENT (VERA)

45. The VERA was the first tool specifically developed for violent extremism. Comparing the VERA with other SPJ tools including the HCR-20 and the SAVRY, Pressman found that only three items on the HCR-20 and seven items on the SAVRY were representative of risk items considered relevant to violent extremism. As such, Pressman and Flockton (2012) advised caution in using tools developed for individual engaging in violent offending, with terrorists. Instead, specific risk assessment approaches should be used, which is why the VERA was developed by Pressman in 2009. Since then it has undergone several revisions. This section will focus on the most recent version of the tool, which is the VERA-2R.

46. The VERA-2R aims to assess an individual's risk of violent extremism. It is important to note that it can be used for all types of extremism and is appropriate for young people as well as male and female adults (Pressman, Dutis, Rinne & Flockton, 2019).[5] The VERA-2R provides a structure that assists in the analysis of the individual's risk of violent extremism across eight domains:

    1. Beliefs, attitudes and ideology;
    2. Social context and intention;
    3. History, action and capacity;
    4. Commitment and motivation of the person,
    5. Protective and risk-mitigating indicators,
    6. Personal history
    7. Criminal history
    8. Psychopathology

47. In total, the VERA-2R contains 45 items and can be used with individuals involved in violent extremism, terrorism and/or violence motivated by religious, political or social ideologies. It can also be used pre-crime or post-crime across any judicial setting, with the aim of informing assessment, risk management and decision-making.

48. Beardsley and Beech (2013) evaluated the usefulness of the VERA by examining how simple it was to apply the tool to a small sample of case studies of individuals convicted of terrorism. An additional aim was to investigate whether the tool was more applicable to lone terrorists or those who acted as part of a group. Beardsley and Beech (2013) hypothesised that it would be easier to apply the VERA to those who work as part of a group due to the emphasis on items such as feeling alienated and seeking social support. Using descriptions of each factor produced by Pressman (2009), each factor was rated for each of the case studies. It was found that the factors were easy to apply and for those that were not, it was proposed that an interview would have assisted. Whilst a few factors related more to those who were part of a group, most did not therefore the authors found little support for their hypothesis that it would be easier to apply with group-based terrorists. The inter-rater was good, with a kappa value of 0.76. However it should be noted that the sample size was particularly small. It should also be noted that the original development sample originates from Canada and the Netherlands. As such there may be a lack of generalisation to UK, and more specifically, Scottish samples.

49. In terms of strengths, the VERA-2R is applicable to all types of ideology; it incorporates protective factors and allows the assessor to add indicators deemed relevant to the individual being assessed (Lloyd, 2019). However, items require a quantitative rating plus qualitative information thereby it may be time consuming to administer and it is suggested that assessors may need access to classified information, which may not always be possible (Lloyd, 2019).

[5] Pressman et al. (2019) wrote an entry on the VERA-2R in the Extremism Risk Assessment: A Directory report authored by Lloyd (2019).

EXTREMIST RISK GUIDANCE (ERG22+)

50. The ERG22+ was developed by Her Majesty's Prison and Probation Service (HMPPS) and is an SPJ tool offering a formulation guided assessment of risk and need (HMPPS, 2019)[6]. Prior to the ERG22+ those convicted under terrorist legislation were often considered by National Offender Management Service (NOMS) to pose a high risk of serious harm due to the offence they committed which had implications for case management and operational resources (Lloyd & Dean, 2015). The predecessor to the ERG22+ was the Structured Risk Guidance (SRG) however following evaluation, the tool was redeveloped to the ERG22+ which was implemented in Prisons and Probations by HMPPS in 2011 (HMPPS, 2019).

51. The development of the ERG22+ was underpinned by international literature on terrorists, casework with individuals convicted of terrorism offences and a comparative analysis of the criminogenic profiles of individuals convicted of extremist offences compared to individuals in mainstream population (HMPPS, 2019). The tool aims to assess the degree of engagement with an extremist group, cause or ideology in addition to current readiness to offend (HMPPS, 2019). Extremist offending is defined as "*any offence associated with a group, cause or ideology that propagates extremist views and actions and justifies the use of violence and other illegal conduct in pursuit of its objectives.*" (National Offender Management Service, 2007). The ERG22+ should be applied with individuals convicted of an extremism offence in England and Wales however the tool can be applied where there are substantial concerns about extremism even if the individuals convictions do not relate to such (HMPPS, 2019).

52. The ERG22+ is comprised of 22 risk factors across three areas: engagement, intent and capability. The assessor can also add more case specific risk factors if deemed relevant (Logan & Lloyd, 2019). The three domains can be described as follows (HMPPS, 2019) –

    - The engagement domain assesses the process often referred to as radicalisation;
    - The intent domain is described as the end point of an engagement process and aims to assess readiness to commit illegal acts;
    - The capability domain assesses the individual's ability to commit such acts and includes items assessing networks and resources.

53. The ERG22+ can be administered through interview or in writing, but assessors are encouraged to obtain information from as many sources as possible. It is also recommended that the tool is reviewed periodically which will indicate progress or change (HMPPS, 2019). The tool can be used by chartered and registered Psychologists or experienced Probation Officers and to use the tool, individuals must attend a two-day training course (HMPPS, 2019).

54. Powis, Randhawa-Horne and Bishop (2019) conducted a study examining 171 ERG22+ assessments completed with those convicted of Islamic extremism. Descriptive statistics were performed to provide insight into the presence of factors across the sample. In addition, multidimensional scaling analysis[7] was conducted to identify any potential underlying structures that could assist with the development of the tool. It was found that certain risk factors had a higher presence than others. Several factors were found to be strongly or partly present for the majority of those assessed and this included '*need to redress injustice*', '*need for identity, meaning and belonging*', '*political and moral motivation*', and '*attitudes that justify offending*'. The risk factors that were found to have the lowest presence across those assessed included '*need to dominate others*', '*opportunistic involvement*', '*mental health issues*' and '*harmful end objectives*'. In conclusion five domains were identified, they were defined as '*Identity & External Influence*', '*Motivation & Ideology*', '*Criminality*', '*Capability*' and '*Status and Personal Influence*'. It was found that '*Mental Health*' and '*Excitement, comradeship and adventure*' did not cluster well with other items.

[6] HMPPS developed the ERG and wrote an entry on the tool which is included in a tool directory authored by Lloyd (2019).
[7] This is a method of analysis that visualises the degree of similarity between individual cases within a dataset.

55. Powis et al. (2019) concluded that the study findings do not fully support the current structure of the tool (with the risk factors in three domains) but instead suggest a different model with five underlying subscales. However, they caution that this structure should be considered as preliminary as further development and confirmatory research is required. Mental health was located away from the other factors; it is proposed that as mental health covers a full range of psychopathology which could have differing influences on offending. As such it could be considered a domain itself. Overall, the findings indicate that the ERG22+ offers promise but would benefit from review and refinement. It should be noted that, in the Powis et al. (2019) study, assessments related solely to those who committed offences in support of Islamist extremism. As such a limitation is that the findings may not be generalisable. The sample also included few women and it cannot be ignored that females convicted of terrorism offences may have different motivations to men. Therefore more research is needed to examine the validity of the tool with those supporting differing groups, causes and/or ideologies in addition to examining the tools validity with females.

56. Hall (2020) has also expressed concerns about an overemphasis and reliance on the ERG22+ within MAPPA arrangements across England and Wales. This paper acknowledges the use of the tool prior to an individual being released into the community as well as being periodically updated following release. However Hall (2020) considers there to be insufficient acknowledgement of the limitations associated to the tool. The commentary offered relates to the ERG22+ minimising the seriousness of terrorism offences and the need to pay more attention to facts and sentencing documentation. Further concern is expressed in relation to the weight given to an individual's custodial behaviour with the analysis that individuals often commit offences at a time when their overall behaviour is predominantly pro-social. As such it could be expected that individuals could and would behave positively within custody.[8] A further limitation offered by Hall (2020) is the significant time taken to complete the tool and the negative implications this can have on incorporating new information considered relevant to risk. Finally the factors on the ERG22+ may not adequately encompass the potential impact of external factors such as changing circumstances in other countries that might motivate an individual to change their behaviour. Hall (2020) concludes that "*it is important to avoid losing sight of the magnitude of harm that an individual was prepared to carry out when at liberty, and therefore the risk that the individual may continue to pose either in the immediate future or in the long term.*" (pp. 6). Despite these limitations, Hall (2020) does consider that the ERG22+ can be helpful in terms of identifying risk and protective factors that are useful considerations for risk management. For these reasons, Hall (2020) states that the ERG22+ should be considered a risk factor assessment as opposed to a risk assessment so that the outcome of the ERG22+ does not become the main means of determining risk of terrorism offences. He suggests that the tools like the ERG22+ should not be depended on to provide the entire picture of risk.

57. In terms of the strengths of the tool, Lloyd (2019) notes that it is linked to an intervention that addresses factors contained in the ERG22+ called Healthy Identity Intervention (HII).

58. Additionally, and similar to other SPJ tools (e.g. HCR-20v3) the tool allows for the inclusion of additional factors and can be used to inform sentence-planning, intervention and release (Lloyd, 2019) . In addition to the limitations noted above, Lloyd (2019) details that information on reliability plus validity is not yet available and it remains to be established whether the factors of the ERG22+ are correlates or predictors of risk.

59. The ERG22+ has also been adapted into a shortened version known as the Extremism Risk Screen (ERS). The tool still asks questions centred under the three domains of engagement, intent and capability. Lloyd and Dean (2015) state "*the ERS is designed to assist prison and probation officials assess information about an offender's possible involvement or interest in extremist groups, causes or ideas. This is used with offenders with no previous convictions for extremist offences*" (pp. 19).

[8] R (on the application of X) v Ealing Youth Court (sitting at Westminster Magistrates' Court) [2020] EWHC 800 (Admin) at paragraph 49

TERRORIST RADICALIZATION ASSESSMENT PROTOCOL (TRAP-18)

60. The TRAP-18 is another risk tool that adopts an SPJ approach (Meloy, 2018). The tool assists in prioritising cases based on the imminence of risk. This is particularly useful when considering that prioritising cases and assigning resources is a challenge in counter terrorism (Meloy, 2019)[9].The tool is focused on prevention of terrorist behaviour rather than prediction of such. The TRAP-18 should be used with individuals who have come to the attention of law enforcement due to concerns regarding engagement in ideologically motivated violence. The TRAP-18 was originally characterised as an investigative template as it was felt that there was not sufficient validity to utilise the tool as an SPJ measure (Meloy, Roshdi, Glaz-Ocik & Hoffman, 2015). However, Logan (2019) notes that the tool has since been rebranded an SPJ framework as its function has evolved and it conforms to the SPJ recommended structure.

61. Meloy (2018) detailed the development of the TRAP-18 as well as the current research on the tool in a recent article. Following the London Terrorist bombings in July 2005, there was consideration as to why violence risk research did not distinguish between affective (emotional, reactive) and predatory (instrumental, targeted) violence. It was posed that even if it were to make no difference in the risk assessment of individuals, it may influence risk management approaches (Meloy, 2018). The TRAP-18 is comprised of two sets of indicators; 8 warning behaviours and 10 distal characteristics. The warning behaviours were developed as a means to identify proximal risk for intended or targeted violence (Meloy et al., 2012). The warning behaviours may indicate increasing risk for targeted violence (Meloy et al., 2015). Whereas the distal characteristics were derived from psychosocial research on lone actor terrorism, several of the distal characteristics are static such as history of criminal violence. The distal characteristics and proximal warning behaviours are separated to create a distinction between watching and warning (Monahan & Steadman, 2016). It is indicated that presence of distal characteristics require active monitoring and the presence of one or more warning behaviours should prioritise the case as requiring active risk management (Meloy & Gill, 2016).

62. Meloy, Hoffman, Roshdi and Guildmann (2014) conducted a retrospective study to explore whether there were differences in warning behaviours between a sample of German school shooters (n=9) and students of concern (n=31). Cases relating to students of concern were only included if it was found that there was no serious intention to commit a school shooting. It is detailed that in most cases, such individuals came to the attention of others due to threatening or worrisome communication. The sample of school shooters was comprised of males aged between 15 and 23 years of age. Differences were found between the school shooters and those of concern. Whilst both leaked their intent to others, five warning signs were found to be of greater frequency in the school shooters. The five warning signs included pathway, fixation, identification, novel aggression and last resort. These warning behaviours were found to differentiate those who acted (school shooters) from those who showed no intent to act (students of concern).

63. Numerous studies have examined the applicability of the TRAP-18 retrospectively, often by examining case studies and applying the tool. Studies have applied the tool to various populations of both lone-actor and group-based terrorists. In terms of lone-actor terrorism, the TRAP-18 was retrospectively applied to a case study of an individual who committed a terrorist attack at Frankfurt airport in 2011 (Böckler, Hoffman & Zick, 2015). Using case study information about the individual and their life, the presence of 6 proximal warning behaviours and 9 distal characteristics was identified. Similarly, Meloy and Genzman (2016) retrospectively applied the TRAP-18 to a case study of an individual who committed a mass murder at Fort Hood in Texas in November 2009. The authors commented that the results demonstrated a goodness of fit between the behaviours of the case study and the proximal plus distal characteristics of the tool.

[9] The author of the TRAP-18 wrote an entry on the tool for a directory authored by Lloyd (2019).

64. Using a comparative approach with a sample of 111 lone-actor terrorists, Meloy and Gill (2016) examined the applicability of the tool. The individuals had either engaged in or planned to engage in acts on lone-actor terrorism; the individuals were either convicted or died during the act. The sample spanned a 25 year period and the subjects were divided into different ideological groups including radical Islamic extremists, extreme right wing terrorists and single issue terrorists as well as whether they were act was thwarted or successful. In addition to coding the tool for the sample of 111, the indicators were compared amongst the three ideological groups as well as between those who successfully committed a terrorist act and those who did not. It was found that the majority of participants (70%) scored for at least half of the TRAP-18 indicators. Approximately 77% evidenced 4 proximal warning behaviours (pathway, fixation, identification and leakage), the elevation of which is consistent with other forms of targeted violence such as school attackers (Meloy & Gill, 2015). Of particular interest to risk management considerations, the TRAP-18 was able to distinguish between those lone-actor terrorists who were successful and those who were thwarted. There were 5 variables (fixation, creativity/innovation, failure in sexually intimate pair bonding, pathway and less likely to be dependent upon a virtual community) that differed between the groups (Meloy & Gill, 2016). The authors note that the study supports the general utility of the tool as there were only 4 significant differences amongst the 3 ideological samples which included; personal grievance and moral outrage, dependence on the virtual community, thwarting of occupational goals and fixations.

65. Nowopolski, Banasik and Gierowski (2018) examined the case study of a 27 year old man who attacked 9 people using 2 knives. The individual had major mental disorder and was deemed incapable of understanding the act he had committed. In this study, the authors used case information to identify the presence and severity of historical and clinic violence risk factors from HCR-20v3, and proximal and distal warning behaviours from the TRAP-18. It was found that the individual displayed or partially displayed at least 6 of the 8 proximal warning behaviours and 6 of the 10 distal warning behaviours from the TRAP-18 (Nowopolski et al., 2018). In terms of the HCR-20, it was found the individual displayed or partially displayed seven of the ten historical factors of violence risk and all five of the clinical factors of violence risk (Nowopolski et al., 2018).

66. Erlandson and Meloy (2018) retrospectively applied the TRAP-18 to the case study of Anton Pettersson who committed a targeted attack on a Swedish school using a sword. The authors aimed to examine the offence characteristics and test the hypothesis that the case should be considered an act of individual terrorism. The individual met the criteria for 7 of the 8 proximal warning behaviours and 8 of the 10 distal characteristics. Based on the findings, this study concluded that there is an excellent goodness of fit between this case and other cases of individual terrorists in both North America and Europe, which supported hypothesis that the school attack was an act of terrorism (Erlandson & Meloy, 2018).

67. In terms of the applicability to group-based terrorists, Meloy, Roshdi, Glaz-Ocik and Hoffmann (2015) retrospectively coded for a sample of 22 individuals who had committed acts of terrorism in Europe between 1980 and 2015. There were 19 cases involving 22 perpetrators; 15 of whom acted alone, and 7 were member members of autonomous cells. This formed two subgroups: those who acted alone and those who were part of an autonomous cell. The sample was comprised of 21 males and 1 female with an average age of 31 years of age. The majority (72%) of those who acted alone scored on 13 of 18 factors and likewise, the majority (72%) of those who acted in autonomous cells also scored for 13 out of 18 factors (Meloy et al., 2015). As with other studies where the tool has been coded retrospectively, the authors note that observational bias, availability bias and hindsight bias are limitations of the study.

68. A recent study examined the applicability of the tool with individuals involved in terrorism in different ways. Challacombe and Lucas (2018) applied the TRAP-18 to 58 individuals associated with the Sovereign Citizens movement in the United States who had engaged in violent and nonviolent incidents. Of the sample, 30 had planned or committed violent or dangerous actions and 28 had committed nonviolent criminal actions. The authors applied systematic search techniques to obtain as much open source material as possible. Results from binary

logistic regression indicated that the total number of items rated as present was predictive of violence. Challacombe and Lucas note that the variance in results in comparison to other studies suggest that sovereign citizens or domestic terrorists may exhibit different warning signs than other types of terrorists. As such, the authors call for further research examining the use of the tool in relation to domestic violent groups and events (Challacombe & Lucas, 2018).

69. Using a comparative approach, a validation study by Goodwill and Meloy (2019) examined a sample of North American terrorist attackers (n=33) and non-attackers (n=23). The terrorist sample included extreme right wing, single issue and jihadist terrorists whereas the non-attackers sample was comprised of those who had been investigated as part of a threat but found not to pose intent to commit a terrorist act or require management (Goodwill & Meloy, 2019). Multi-dimensional scaling (MDS) was used to visualise the potential clustering of risk factors. The study found that the number of indicators present between attackers and non-attackers was not statistically significant. However, the number of proximal warning behaviours (i.e. occurring close/near in time to behaviours) was found to differ as they were largely present among attackers but largely absent amongst non-attackers. Distal characteristics (i.e. factors contributing to behaviours but more distant in time from when a behaviour occurs) were present in both groups. Three of the distal characteristics were found to relate to proximal warning behaviours in attackers, which the authors suggesting greater likelihood of finding proximal warning behaviours than any distal characteristics (Goodwill & Meloy, 2019).

70. In terms of the tools applicability to those with mental disorders, a study by Garcia et al. (2019) aimed to evaluate whether the TRAP-18 could predict future extremist violence in a sample of patients with severe mental illness and who were also socially excluded. The authors highlight that many terrorist groups had no interest in recruiting people with mental illness, as they could be "unstable and difficult to control" but Islamic State (IS) has changed this by focusing on a DIY, lone-terrorist approach and recruitment through social networks. The authors administered a Baseline Assessment Protocol and then completed the TRAP-18. Items were scored on a 2-point scale (definitely absent to probably present). They also examined participants' clinical histories for episodes of violence and violent extremism, using the HCR-20's definition of violence[10]. Following completion of the tool, 13 committed a violent act, 2 of those committed acts considered violent extremism. It was found that those who had committed new violent extremism (n=2) had significant differences from the others in their total TRAP-18 score, as well as in their scores on the Distal and Proximal subscales. As such, the study concluded that the TRAP-18 is useful for predicting future violent extremism among people with severe mental illness who are socially excluded and have a history of imprisonment. Therefore, the authors suggest the TRAP-18 is a useful tool for forensic psychiatric assessment regarding risk of radicalisation (Garcia et al., 2019). While both the total TRAP-18 score and the individual subscale scores differed between the groups, the total score showed greater predictive power.

71. In a recent article, Guildmann & Meloy (2020) detailed the components of the TRAP-18, examined the findings of recent research and made recommendations for future research. The authors noted that whilst research has produced encouraging findings, more extensive and independent research needs to be conducted, as there is an authorship bias when the developers conduct research on their own instrument (Singh et al., 2013). It should be noted that the TRAP-18 has been subject to research independent of the tools developer, some of which has been detailed in this review. However, whilst the research is promising, further research is needed with a particular focus on further comparative and postdictive research by independent researchers (Lloyd, 2019). Postdictive studies have been recommended as a means of testing the performance of a tool or framework with known outcome case studies (Monahan, 2012). However, such studies can be influenced by confirmatory or hindsight bias, which is a limitation of the postdictive studies, conducted with the TRAP-18 (Logan, 2019). However, the postdictive studies have produced new learning such as more lone actors show evidence of psychopathology when compared with group actors terrorists and that greater lethality is correlated with greater psychopathology (Lloyd, 2019).

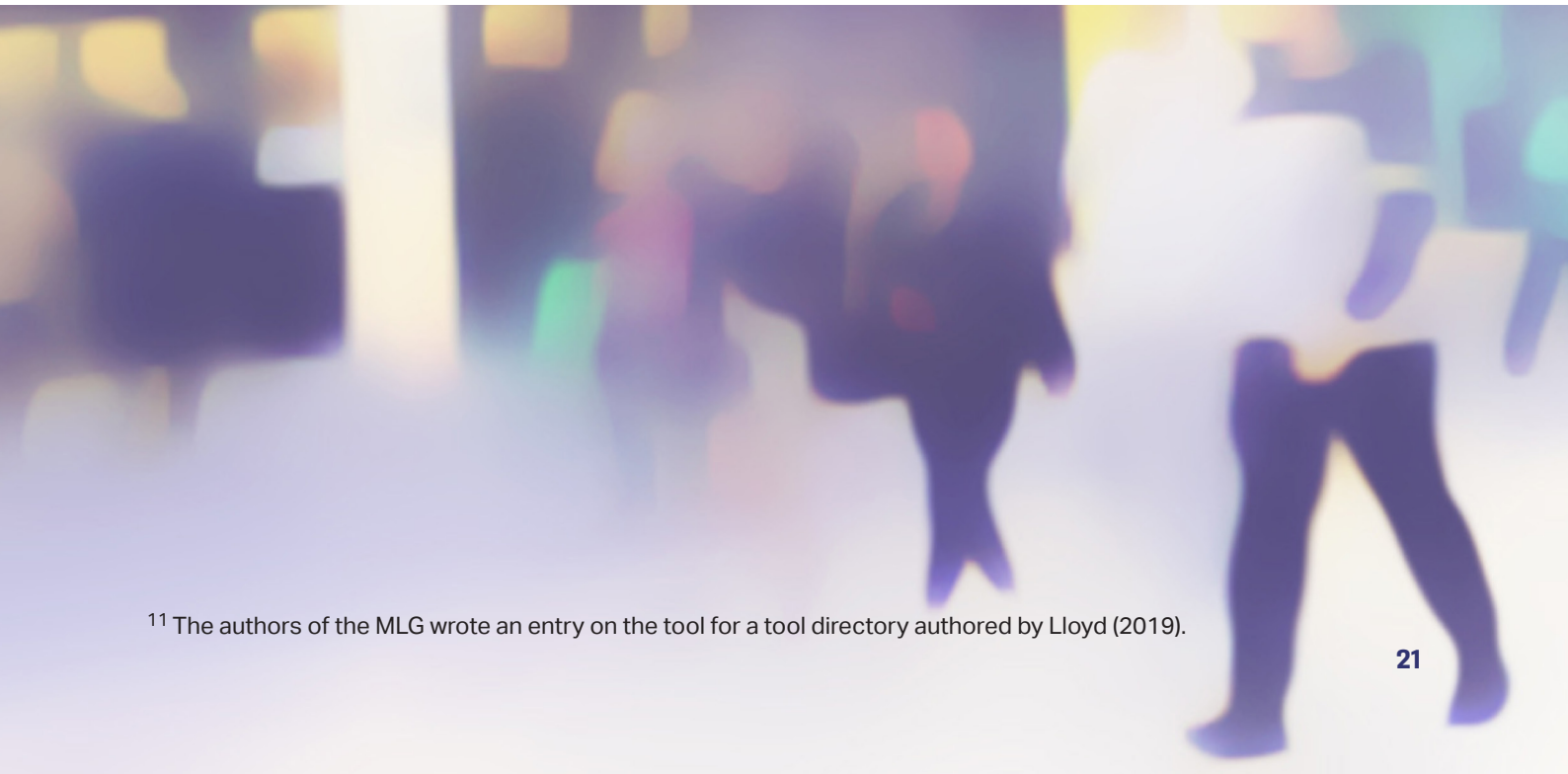
[10] The HCR-20 definition of violence is "*actual, attempted, or threatened infliction of bodily harm on another person*" (Douglas et al., 2013, p. 36).

72. The TRAP-18 has many strengths; it can be used to assist with case prioritising and initiating active management or monitoring; it has been subject to several predictive studies and it has the potential to differentiate between empty threats and real threats (Lloyd, 2019). On the flipside, the tool focuses on lone-actors limiting its applicability with group actors, it has also been suggested that it may be challenging to access the information required to complete the assessment in a pre-crime scenario (Lloyd, 2019).

MULTI-LEVEL GUIDELINES (MLG)

73. Two publications provided information on the Multi-Level Guidelines (MLG) developed by Cook, Hart and Kropp (2013). The MLG is a set of guidelines, which adheres to SPJ guidelines. It is used for the assessment of group-based violence, which includes terrorism (Cook, Hart & Kropp, 2019).[11] As outlined by Cook (2014) '*Group-based violence (GBV) may be defined as actual, attempted, or threatened physical injury that is deliberate and non-consensual, perpetrated by one or more individuals whose decisions and behaviour are influenced by a group to which they currently belong or with which they are affiliated* (pp. V). The MLG is different from other tools, which take an individual level approach to assessing risk of violent extremism, with the MLG assessing group-based violence. The MLG is comprised of 20 risk factors, which are split across four domains; the risk factors were derived from a systematic review of the literature (Cook et al., 2019). The four domains include individual factors, individual-group factors, group factors and group-societal factors. The MLG can be used to monitor change therefore re-assessment is recommended, the maximum time recommended before re-assessment is 12 months due to the dynamic nature of risk (Cook et al., 2019).

74. The tool can be applied pre or post crime with male or female individuals aged 14 and above who either are a member of or associated with a violent group (Cook et al., 2019). It is advised that the MLG be used in conjunction with other risk assessment tools to assess terrorist group-based violence if there are risk factors considered relevant but not captured in the MLG (Cook et al., 2019). The identified risk factors in the MLG are described as being "*face-valid, content-valid, legally-valid, and evidence clinical and practical utility*" (Cook, 2014, pp. 35). The MLG utilises the full SPJ approach through to scenario planning, it overtly considers the individual in their social and wider societal and political context and it has potential use with gangs, terrorists and those involved in organised crime (Lloyd, 2019). However, users need to be experienced risk assessors to adequately evaluate the information and as the factors in the individual domain are general, Lloyd (2019) suggests they may lack the specificity needed to complete a detailed terrorist assessment.



[11] The authors of the MLG wrote an entry on the tool for a tool directory authored by Lloyd (2019).

ISLAMIC RADICALISATION-46 (IR-46)

75. Two publications examined the Islamic Radicalisation (IR-46) framework, which was developed by Psychologists in the Netherlands working with the Dutch National Police (Lloyd, 2019). The IR-46 is the successor to a previous tool named Kennis in Modellen (KIM) which translates to Knowledge in Models (Heide et al., 2019). The IR-46 was developed in 2016 and was informed by the literature on terrorism, closed source Islamist case studies in addition to discussions with intelligence analysts. The tool adopts an SPJ approach and is comprised of four phases containing indicators related to ideology and the social context of an individual (Heide et al., 2019). The IR-46 was developed as a means to identify individuals in the community who may be at risk of committing an Islamist terrorist attack (Lloyd, 2019). The IR-46 is not suitable for other ideological groups, the authors are currently developing frameworks for Far Right and Extreme Left Wing groups (Lloyd, 2019). The IR-46 is therefore designed to be used with individuals of concern rather than those who have been convicted of an offence; providing a more prevention approach. In terms of its strengths, it can be used for ongoing monitoring and it can assist in structuring multi-agency management of risk in the community (Lloyd, 2019). However, it is limited to solely assessing Islamist extremist offending thereby missing other forms of extremism and information about its reliability and validity are unknown (Lloyd, 2019).

STRUCTURED ASSESSMENT OF VIOLENT EXTREMISM (SAVE)

76. Only one available article appears to have examined the Structured Assessment of Violent Extremism (SAVE) tool, which is described as a quantified SPJ tool (Dean & Pettet, 2017). SAVE is a revision of its predecessor, the Risk Assessment for Violent Extremists (RAVE) prototype developed by Dean (2014). The SAVE inventory uses an algorithm to assess an individual's current risk or threat level. It aims to identify perceptions and beliefs found to be correlated with violent extremism. Theoretically it is based on the neurocognitive learning model of the radicalisation process.[12] The SAVE is an SPJ tool that applies mathematics, however it is not a statistical decision-making model. It is aimed at supporting, enhancing and validating professional judgement, not replacing it.

77. The SAVE is composed of two components; 1) A 30 item inventory of cognitive risk indicators and 2) a software programme which produces a visual output of risk potential. The 30-inventory contains 3 scales; terrorism, militancy and shootings. The software uses the 30-item inventory to produce a 3D representation of an individual's risk and threat level. This indicates the "risk potential" of a Person-of-Concern (POC). The SAVE also includes a radicalisation timeline that can provide stage-by-stage detail and explanation into the thinking of a potential violent extremist.

78. Another important component of the SAVE is its approach to dealing with assessor subjectivity in relation to professional judgement within terrorism/extremism risk assessment. Subjectivity in SPJ approaches can be handled by either 'controlling out' or 'controlling in'. Controlling out approaches involve trying to exclude as much bias as possible. This is done through adopting strict guidelines and protocols with the aim of being more objective. The issue here is whether assessors can be reasonably expected to sufficiently self-manage and censor their known biases. There is also the issue around the likelihood of unconscious biases influencing an assessment. Controlling out processes also assume all aspects of professional judgement are negative and lack relevance (see discussion on Unstructured Clinical Judgement on pg. 6). The SAVE takes the approach of building in professional judgement rather than trying to exclude it. As such it takes a 'Controlling In' approach. This involves including and controlling for the assessors view of risk.

[12] The authors of the SAVE acknowledge that the term radicalisation is an area of debate (e.g. Schmid, 2013)

79. The SAVE attempts to do this controlling in process by adopting the 3 R's:

    - Estimated Risk – this is the potential risk estimated by the assessor. It is based on their professional knowledge and is a general risk rating derived from the case history, experience and intuition.

    - Calculated Risk – this is based on the 30-item inventory and is a weighted average of combined scores on perceptions and beliefs. This is a risk rating based on each risk indicator.

    - Temporal Risk – this is a current radicalisation risk rating based on the individual's point in a pathway towards extreme thinking derived from neurocognitive indicators.

80. The 3 R's come together to assess the risk potential of an individual's current attachment to specific perceptions and beliefs. The software outputs include a 2D risk contour plot, a 3D risk surface plot, and a combined histogram of the 3 R's. This then links to potential risk management by prioritising the case under four possible outcomes:

    - 1st priority – Immediate action required
    - 2nd priority – Urgent review required
    - 3rd priority – Regular monitoring required
    - 4th priority – Periodic follow up

81. In addition, the software can provide alerts where it recognises potential discrepancies across the 3 R's. This may be due to potential over or under-estimating risk, a misapplication of the 30-item inventory, or an incorrect assessment of the individual's phase of radicalisation.

82. The approach taken by the SAVE means that the estimated risk is the assessors own view of the potential risk (i.e. the 'professional judgement' aspect of SPJ). The calculated risk is the view of risk from the 30-item inventory (i.e. the 'structured' aspect of SPJ). Therefore the SAVE attempts to quantify the subjectivity of an assessor's judgement. It then tests it against salient risk indicators to determine alignment. When all of the 3 R's align with the same risk level then this is considered an internally consistent outcome.[13] However if there are discrepancies across the 3 R's then the risk level can't be validated. This then requires further investigations involving things like seeking more information, gathering and weighting intelligence, and data collection. The aim, through review, is to try and resolve the inconsistencies.

83. The SAVE is clearly unique in terms of trying to quantify and visualise the extent to which an individual's cognition represents someone who has or has not been radicalised. Its attempt to incorporate assessor subjectivity and place value on it is also unique. The tool is based on literature around neurocognitive developmental pathways, specifically in the context of radicalisation, and as such considers the dynamic, non-linear and changeable nature of an individual's mind. The SAVE requires practice-based training on the use of the software. It is a tool that could complement the more behaviourally focused tools like the VERA and ERG22+. As of 2016, the SAVE system was awaiting funding from the Federal Government for field trials across numerous Australian police jurisdictions. The outcomes of these field trials may help shed more light on the applicability and utility of the SAVE in relation to counter-terrorism.

[13] The SAVE authors clearly state that this doesn't guarantee that this is the 'correct' risk prediction for this particular individual.

5. TOOLS OR FRAMEWORKS FOCUSED ON PREVENTING RADICALISATION

84. Sarma (2017) highlights that risk assessment has focused on those who are known to be involved in terrorism and where the assessment may be used to inform sentencing, rehabilitation and reintegration (Pressman & Flockton, 2012). Whereas, risk assessment aimed at preventing violent radicalisation into terrorism has received less attention. Four systems are discussed here, including; the Vulnerability Assessment Framework (VAF), the Identifying Vulnerable People, the Observable Indicators of Possible Radicalisation guidance, and Radar. Sarma (2017) noted that the first three encourage an approach that has similarities with the SPJ however none draw on the wider strengths of the approach in relation to gathering information, case formulation or risk management which are central to the SPJ approach.

VULNERABILITY ASSESSMENT FRAMEWORK (VAF)

85. Three publications examined the VAF. It was developed from the ERG and one of the two creators of the ERG was involved in the development of the tool (Knudsen, 2020). The tools are described as being in wide use in the UK: the ERG is used with those convicted of terrorism offences whereas the VAF is used to assess those who may be vulnerable to being radicalised (Knudsen, 2020).

86. Whilst the focus is on vulnerability, the VAF aims to "*identify individuals at risk of being drawn into terrorism; assess the nature and extent of that risk; and develop the most appropriate support plan for the individuals concerned.*" (Home Office, 2012, pp. 2). The VAF was developed to be used by local authorities with those who had been reported as concerning under Prevent. The prevent programme is a component of the UK's counter-terrorism strategy CONTEST and places a statutory duty upon certain authorities to report concerns regarding potential radicalisation. It also allows individuals to refer anyone else regarding radicalisation-related concerns (HM Government, 2011; Home Office, 2021). Referrals may be directed to Channel where an overall assessment will be undertaken which includes conducting a VAF and obtaining information from the individual's family and wider network (Knudsen, 2020). The VAF is mostly used in local partnerships, which includes staff in education and health sectors, local authorities and youth services that work with the Channel projects (Heide et al., 2019; Sarma, 2017). Channel aim to provide early intervention to safeguard individuals and divert them from the risk (Home Office, 2012). Ultimately, the VAF is used as a means to guide decisions regarding whether an individual needs support to address vulnerability to radicalisation as well as determining what kind of support they need (Home Office, 2012).

87. The VAF is comprised of the same 22 risk indicators as the ERG and are split across the same three domains: engagement, intent and capability (Heide et al., 2019). The engagement domain contains factors, otherwise referred to as 'psychological hooks' such as needs and motivations (Heide et al., 2019; Home Office, 2012). The intent domain contains factors, which assess readiness to use violence as well as capability to do so. The capability domain contains factors, which assess the individual's capability to cause harm, which includes examining their knowledge and skills plus access to networks and funding (Home Office, 2012).

88. Knudsen (2020) details that the main focus of the indicators of the ERG and the VAF is the psychological domain of the assessed individual and notes that the tools do not include indicators that would capture the wider political or societal context. The ERG authors suggest that the assessor should incorporate the wider political and societal context in their assessments (Lloyd & Dean, 2015) however, this is not a requirement. Knudsen (2020) states '*while the ERG and VAF indicators are not intended to capture the full political and societal context of an individual's radicalisation, England and Wales' actual counter-terrorism reliance on these indicators make their limited explicit incorporation of such context problematic*' (pp. 40).

IDENTIFYING VULNERABLE PEOPLE (IVP)

89. Only two publications appear to have examined the IVP framework. The IVP was developed in 2008 from a review of the existing literature and it has been in use since 2010 (Cole, Cole, Alison & Alison, 2019).[14] The tool can be used by anyone subject to 'Prevent duty' under the Counter Terrorism and Security Act 2015. The IVP is comprised of indicators including 'red flag behaviours' (e.g. – contact with known extremists) and other factors such as risk taking behaviours and political activism (Sarma, 2017).

90. The authors have detailed that practitioners use the IVP without formal training from the developers and it is unknown whether organisations train employees to use the IVP though anecdotal evidence suggests this may be the case (Cole et al., 2019). In terms of strengths, the IVP helps the user structure concerns, the development of the IVP was informed by literature on terrorism and it is easy to administer plus accessible online (Lloyd, 2019). However, the IVPs development was informed from features of Al Qaeda terrorism, which is less relevant to other types such as ISIS inspired extremism and certain indicators are of greater relevance to Islamist extremism thereby potentially limiting its applicability to other forms of extremism (Lloyd, 2019).

OBSERVABLE INDICATORS OF POSSIBLE RADICALISATION

91. Only one publication examined the Observable Indicators of Possible Radicalisation guidance, which was developed through consultation with individuals involved in counter-radicalisation work (Sarma, 2017). The guidance was developed through the European-Union funded project SAFIRE and it is comprised of 21 indicators split into five areas including: identity and identity seeking; ingroup-outgroup differentiation; pro-violence social interactions; change in persona and association (Sarma, 2017).

RADAR

92. The Australian Government developed a protocol known as Radar. The protocol is used to identify those who would benefit from programmes to reduce or mitigate the risk of radicalisation (Heide et al., 2019). It is aimed at assisting the structuring information and decision-making. RTI International (2018) indicated that Radar is comprised of 2 components; a screening assessment and an in-depth assessment. The screening assessment contains 15 indicators across 3 dimensions of ideology, social relations and action orientation. The dimensions relate to the segments of a person's life where they are likely to experience shifts during the process of radicalisation. The assessor can note the measure of intensity for each factor, ranging from minor to moderate to major levels of intensity, which should indicate the degree to which the person may have been radicalised. If warranted, an in-depth analysis will be undertaken which contains 27 indicators across the same 3 dimensions. Whilst there are similarities in terms of the dimensions and indicators of the Radar, it differs in that it was designed to identify those at risk of radicalisation early in the process (RTI International, 2018)

[14] The authors of the IVP wrote an entry on the tool which is published in a directory authored by Lloyd (2019).

6. OTHER FRAMEWORKS

93. There are several other tools discussed in the literature. This includes a self-report measure (SQAT), an evaluative tool (IAT8) and a prison/probation specific vulnerability tool (RRAP).

SIGNIFICANT QUEST ASSESSMENT TEST (SQAT)

94. One publication examined the Significant Quest Assessment Test (SQAT) developed in the United States by Arie Kruglanski. Heide et al. (2019) indicated that the SQAT is a self-administered questionnaire designed to measure radicalisation and devotion to extremism with those are imprisoned. The questionnaire is administered in prisons with the purpose of measuring risk but it may also indicate the effect of de-radicalisation programmes if re-administered over time. The questionnaire is comprised of 66 items, which are marked on a Likert scale to indicate the degree of agreement or endorsement. The scores of the items are used to produce an overall risk level and should provide insight on the level of risk posed. In terms of strengths, the SQAT is unique in that it is self-administered therefore lessening the information and time required to undertake an assessment. However, there is a risk of individuals not completing the assessment honestly and instead providing socially desirable answers.

IAT8

95. Only one publication mentioned the IAT8, which was developed as an assessment framework/ improvement metric to measure the vulnerability of those engaging with the channel programme (RTI International, 2018). The IAT8 should be used at four stages: start of support, during support, end of support and post-support follow up thereby it is to be used as an ongoing measurement to assess changes in vulnerability. Essentially, it serves as a means to evaluate the effectiveness of the programme in reducing someone's vulnerability to extremist ideologies (RTI International, 2018).

Risk Assessment in Prisons (RRAP)

96. Only one publication mentioned the Radicalisation Risk Assessment in Prisons (RRAP) developed by R2PRIS for use within prison and probation settings (Heide et al., 2019). The focus of the RRAP is on risk and vulnerability within the general prison population and it is comprised of 39 items spanning 9 dimensions. Assessors must record the vulnerability (low, moderate or high) for each domain and the risk level will be determined by a decision maker who will conclude on the risk category or need for intervention (Heide et al., 2019).

7. RISK ASSESSMENT SUMMARY

97. The tables presented up front in this section provide a summary of some of the key characteristics of each tool (Table 1). Table 2 then details the headline advantages and disadvantages to each tool.

Table 1. A table indicating some of the key description information of the tools discussed in this review. [15]

TOOL	ERG22+	VERA-2R	TRAP-18	MLG	IR-46	SAVE	VAF	IVP	RADAR	SQAT	RRAP
FULL NAME	Extremist Risk Guidance	Violent Extremism Risk Assessment	Terrorist Radicalization Assessment Protocol	Multi-Level Guidelines	Islamic Radicalisation	Structured Assessment of Violent Extremism	Vulnerability Assessment Framework	Identifying Vulnerable People		Significant Quest Assessment Test	Radicalisation Risk Assessment
COUNTRY OF ORIGIN	United Kingdom	Canada / The Netherlands	United States	Canada	The Netherlands	Australia	United Kingdom	United Kingdom	Australia	United States	Portugal
AUTHORS	M. Lloyd & C. Dean (NOMS)	D.E. Pressman, N. Duits, T. Rinne & J. Flockton	J. Reid Meloy	A. Cook, S.D. Hart & P.R. Kropp	Dutch Police Forceq	G. Dean & G. Pettet	NOMS/ Channel Programme	J. Cole, B. Cole, L. Allison & E. Allison	K. Barelle & S. Harris-Hogan	A.W. Kruglanski	P. das Neves
APPROACH	SPJ	SPJ	SPJ	SPJ	SPJ	SPJ	SPJ	SPJ	SPJ	Self-report	SPJ
BASIS	Literature & cases	Literature	Literature & authors own practice experience	Literature	Literature		Literature & cases	Literature & research	Informed by Academia, forensic mental health experts and counter-terrorism practitioners	Social Psychology	Literature
PURPOSE	Assessment of risk and need	Assesses an individual's risk of violent extremism	Help prioritise cases based upon imminence of risk	Assess risk of group-based violence including terrorism	Assesses the degree of radicalisation	Assess individuals' risk of violent extremism	Assess vulnerability and aims to identify those at risk of being drawn into terrorism	Assesses vulnerability to violent extremism	Identify those who would benefit from intervention to reduce/ mitigate risk of radicalisation	Measure degree of radicalisation	Identify risk and screen those who may be at risk of becoming radicalised

[15]The IAT8 is not included in this table due to the minimal available information.

TOOL	ERG22+	VERA-2R	TRAP-18	MLG	IR-46	SAVE	VAF	IVP	RADAR	SQAT	RRAP
TARGET POPULATION	People in England and Wales convicted of an extremist offence	Can be used pre or post crime with all types of violent extremists, terrorists or violent offenders motivated by religious, political or social ideologies.	People of concern for committing ideologically motivated and intended violence. Primarily focused on lone-actor terrorism.	Can be used pre or post crime with individuals who are a member of a group	To be used pre-crime with individuals displaying signs of Islamic radicalisation	To be used pre-crime	Individuals considered vulnerable to radicalisation	Individuals considered vulnerable to radicalisation	Radicalised individuals in/outwith prison	Radicalised individuals in prison	Individuals in prison thought to be vulnerable to or in process of radicalisation
NUMBER OF ITEMS	22	45 (11 of which are additional indicators)	18	20	46	30	22	16	27	66	39
NUMBER OF CATEGORIES	3	8	2	4	2	3	3	2	5	3	9
NAME OF CATEGORIES	Engagement, Intent & Capability	Beliefs & Attitude; Social Context; History & Capacity; Motivators; Risk mitigating indicators. Additional domains: Personal history; Criminal history; Psycho-pathology	Proximal warning behaviours & distal characteristics	Individual risk factors, individual-group factors, group factors & group-societal factors	Social context & ideological factors	Cognitive risk factors (perceptions & beliefs). Three scales: terrorism, militant, shooter.	Engagement, Intent & Capability	Generic risk indicators & Red flag indicators	Social Relations, Coping, Identity, Ideology & Action Orientation	Needs, Narrative & Network	Emotional uncertainty, self-esteem, radicalism, distance, and societal disconnection, need to belong, legitimisation of terrorism, perceived in-group superiority, identity fusion, and identification, and activism

Table 2. A table indicating the headline advantages and disadvantages of the tools discussed in this review. [16]

TOOL	ADVANTAGES	DISADVANTAGES
ERG22+	It informs sentence planning, intervention and release planning. Its development was overseen by an international expert and advisory group and it is completed in collaboration with the individual.	Reliability and validity are unknown. The ERG was developed on limited international literature and casework, which focused on Al-Qaeda inspired extremism. Limited consideration of external factors. Further research required to ascertain if ERG is applicable to different types of extremism and different populations.
VERA-2R	It has been revised as the knowledge base has grown. It is applicable to all ideological types and it allows for additional indicators to be added.	Assessors may need access to classified information, which may not be available. As each item requires a quantitative rating plus qualitative information, it be time consuming to administer.
TRAP-18	It acts a screening method pre-crime and informs whether active management or monitoring is required. There are a number of postdictive studies thereby developing an evidence base for the framework.	Due to the focus on lone-actors, the tools utility with group actors may be limited. May not have all the information required to complete a TRAP-18 assessment in a pre-crime scenario.
MLG	Utilises the SPJ structure from assessing presence/relevance of risk factors through to scenario planning. It has potential use with gangs, terrorists and those involved in organised crime.	Factors in the individual domain may lack the specificity needed for a terrorist risk assessment. The individual domain lacks detail in terms of assessing general violence which can be a feature of the backgrounds of individuals involved in terrorism.
IR-46	It has strong use for law enforcement working in the community, it is easy to use and provides a way of structuring management of risk.	Limited to islamist extremism. As it is to be used pre-crime, it does include the individual in the assessment process.
SAVE	Incorporates a means of capturing the subjectivity of decision making.	Little research on SAVE
VAF	It can be used by a variety of individuals including those who work in education, local authorities, youth services and the health sector.	Little research on the VAF
IVP	It can be accessed online, it is easy to administer and no training or licensing is required. It offers a means of structuring concerns and informing post-assessment actions.	It was developed from aspects of Al Qaeda inspired extremism, which are less relevant to ISIS, inspired extremism. It does not consider protective factors or risk management
RADAR	RADAR can be used in and outside the prison context	Little research on RADAR
SQAT	As it is completed by the individual, there is no need to obtain information.	Individuals may provide socially desirable answers
RRAP	Designed specifically for use in prisons and probation settings	Little research on the RRAP

[16] The IAT8 is not included in this table due to the minimal available information.

98. Risk assessment instruments are intended to assist the practitioner in different ways by anchoring the assessment in empirical evidence to identify relevant risk factors (RMA, 2019). Tools may be used for varying purposes including aiding decision-making, planning treatment/intervention, predicting the risk of recidivism, using in specialist settings or for case management in criminal justice settings (RMA, 2019). It is important that risk assessment instruments are applied with an understanding of their respective strengths and weaknesses. The tools examined in this review were developed for differing purposes, designed to be used by different professions and applied in various settings. This sections aims to summarise some of the similarities and differences between the tools examined.

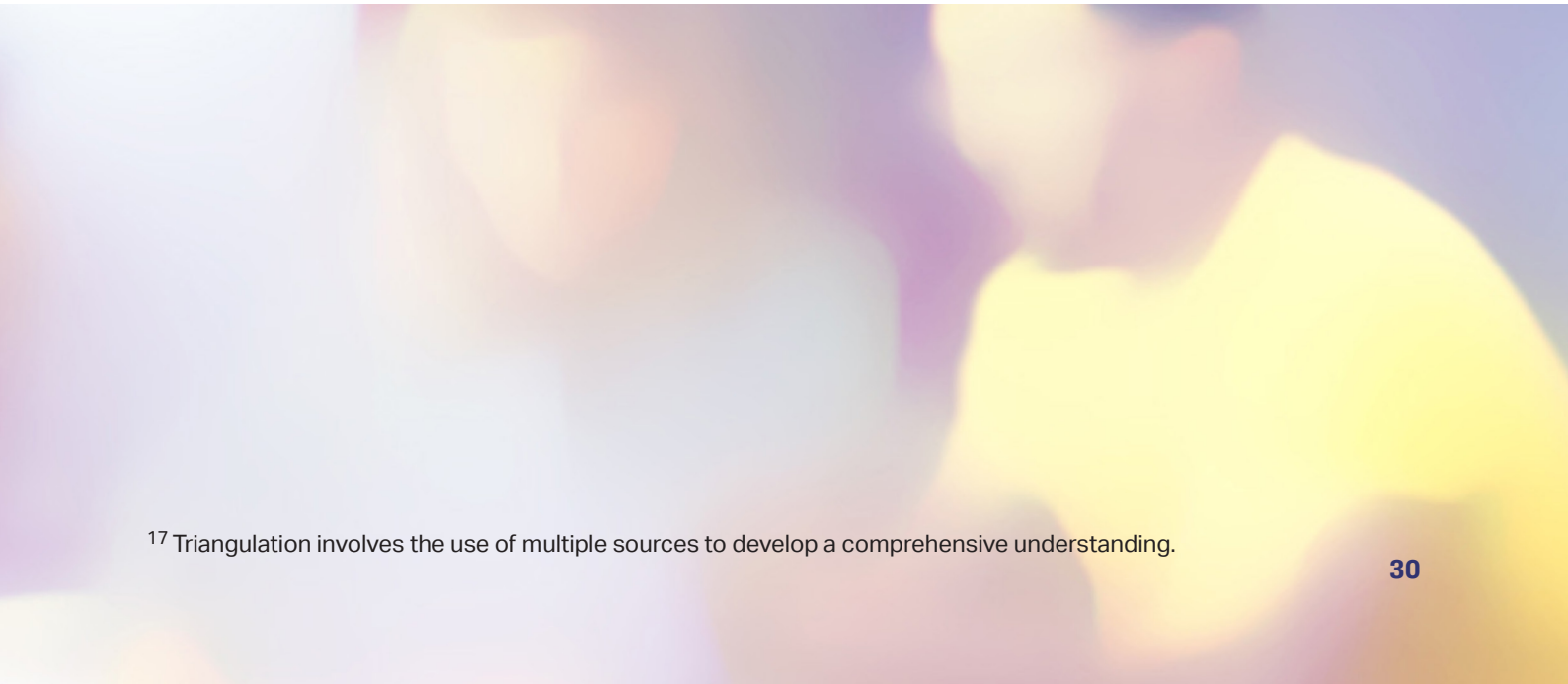
APPROACH TO RISK ASSESSMENT

99. One of the main similarities across the tools reviewed is the adoption of an SPJ approach (with the exception of the Significant Quest Assessment Test). This is likely a product of more risk tool frameworks moving towards such an approach, and most of the terrorism related risk tools are recent developments. This is a promising position to be in, with many of the tools linking risk assessment to risk management, generating scenario planning and including formulation. The TRAP-18 and ERG22+ both include scenario planning. Whilst scenario planning is not included in the English manual for VERA-2R, it is covered as part of the tool training (Pressman et al., 2019). Whereas tools such as the MLG and IVP do not include scenario planning. Lloyd (2019) suggests a feature of the SPJ approach that requires more clarity is the role of protective factors. The VERA-2R includes six protective and risk mitigating factors that Lloyd (2019) describes as being the opposite of six key risk factors. In terms of the ERG22+, the assessor has the option to indicate whether the risk factor has the potential to be protective (Logan & Lloyd, 2019).

TOOL DEVELOPMENT

100. The origin and development samples also differ across the tools reviewed. The tools were developed in varying countries including the United Kingdom (UK), the Netherlands, Portugal, the United States, Canada and Australia. The RRAP was developed in Portugal, the IR-46 was developed in the Netherlands and the VERA was originally developed in Canada and the Netherlands. The ERG22+, the VAF and the IVP were developed in England. Although it is not clear what specific relevance there is to Scottish samples.

101. The development of the tools have been informed by the literature and in some cases, additional sources. The ERG22+ was developed from international literature, casework of individuals convicted of terrorism offences and an analysis of the criminogenic profiles of individuals involved in extremism offences compared to individuals in mainstream population (HMPPS, 2019). The items of the IVP were developed from a review of the literature and research into background material of convicted extremists (Cole et al., 2019). Likewise, the risk factors of the MLG were developed from a review of the literature (Cook et al., 2019). The IR-46 was developed from known cases and was triangulated[17] against the literature, interviews with expert and the investigative and intelligence services (Lloyd, 2019).



[17] Triangulation involves the use of multiple sources to develop a comprehensive understanding.

PURPOSE OF THE TOOL

102. The intended purposes of the tools differ. The developer of the VERA consulted the developers of the ERG22+ about collaborating to produce a single framework but as the purposes of the tools differed, it was decided they would focus on their own tools (Heide et al., 2019). The ERG was developed to be used with individuals convicted of terrorism offences to assess the extent to which the individual is engaged or committed to an extremist group, cause or ideology (HMPPS, 2019). Whereas the VERA-2R was developed to assess an individual's risk of violent extremism and can be used pre-crime or post-crime in any judicial setting (Pressman et al., 2019). Whereas the TRAP-18 was developed to be used pre-crime with individuals of concern to assess the threat of committing an ideologically motivated and targeted violence (Meloy, 2019). Whilst the TRAP-18 is primarily focused on the lone-actor terrorists, one study demonstrated that it was useful in the analysis of autonomous cells in Europe (Meloy et al., 2015). MLG was developed to be used with individuals who are a member of a group; the tool assesses the risk of the individual engaging in group-based violence which includes terrorist violence. Whereas tools such as the IVP and the VAF aim to assist with decision-making where there is cause for concern about an individual's potential radicalisation. The SAVE takes a neurocognitive approach to assess an individual's current risk or threat level. It identifies perceptions and beliefs found to be correlated with violent extremism.

RISK FACTORS/INDICATORS

103. There is an overlap between some of the risk factors of the ERG22+ and VERA-2R. The VAF was developed from the ERG22+ and shares the same 22 risk indicators however the tools were developed to be used by different professions and with different populations.

104. The tool with the most indicators is the Significance Quest Assessment Test, which contains 66 indicators across 3 dimensions; Needs, Narrative & Network. The IR-46 is comprised of 46 indicators across two domains: ideology indicators (26) and social context indicators (20). This is followed by the VERA-2R which is comprised of 34 indicators and three additional domains with 11 indicators (Pressman et al., 2019). Radar is comprised of 27 indicators across 5 domains and the ERG22+ plus the VAF have 22 risk factors across 3 domains. The TRAP-18 is comprised of 8 proximal warning behaviours and 10 distal characteristics. The IVP is comprised of 11 general risk indicators and 5 red flag indicators.

105. Heide et al. (2019) specifically emphasised the importance of risk assessment tools incorporating indicators that are relevant to violent extremism due to the differences between violent extremism and general violent offending. They suggest risk assessments for violent extremism focus on nature of the ideology, justification of violence, intentions to carry out extremist violence, and the capacity/resources of the person to do so (Heide et al., 2019). As such, the tools detailed in this review differ from SPJ tools for other offence types.

TARGET POPULATION

106. The tools were developed for different populations. For example, the IR-46, VAF and the IVP were designed to be used with individuals in the general population who show signs of radicalisation or are considered vulnerable to radicalisation. The Radar were developed to be used with radicalised individuals in and outside a prison context whereas the RRAP and SQAT were designed to be used with those in prison (Heide et al., 2019). Since 2011, the ERG has been used in prisons in England and Wales. The tool is used to asses all individuals sentenced for terrorism offences, sentenced under the UK Terrorist ACT and referred to as TACT (Knudsen, 2020). The shorter version of the ERG, called the ERS is used to assess prisoners convicted of non-terrorist crimes if there is serious concern over "*an offender's possible involvement or interest in extremist groups, causes or ideas*" (Lloyd & Dean, pp. 19).

107. The IR-46, TRAP-18 and the IVP were developed to be applied pre-crime, the VERA-2R and MLG can be applied in pre-crime or post-crime scenarios whereas the ERG22+ was developed to be applied post-crime when someone has been convicted of terrorist related offences (Cole et al., 2019; Cook et al., 2019; Meloy, 2019; Pressman et al., 2019)

ASSESSORS

108. The tools were developed for different professions or in some case, use by multiple professions. For example, the IR-46 was developed for those working in the police intelligence services and 'care providers' (Heide et al., 2019). The IVP and VAF were developed to be used by staff in local authorities including staff in education and health sectors. The IVP and VAF can be used by those subject to 'Prevent duty' under the Counter-Terrorism and Security Act 2015. Whereas the ERG22+ should be used by chartered and registered Psychologists or experienced Probation Officers who are required to undertake assessments as part of their role (HMPPS, 2019).

109. The TRAP-18 is intended to be used by threat assessment professionals, which could include those working in mental health, law enforcement, intelligence analysists, counterterrorism investigators and others with supervisory responsibilities (Meloy, 2019). Whereas the intended users of VERA-2R are described as professional staff who work in criminal justice and law enforcement roles in addition to security and intelligence analysts (Pressman et al., 2019)

TRAINING

110. The majority of the tools examined require some form of training in order to use the tool. The Radar, the VERA-2R, the ERG22+, the TRAP-18, the SQAT, the IR-46 and the RRAP all require the intended assessor to undergo training (Heide et al., 2019; Lloyd, 2019). The developers of the ERG22+ explicitly state that only experienced assessors such as Forensic Psychologists should use the ERG22+, they also note that users require a political awareness in the area of extremism (Heide et al., 2019). In terms of the VERA-2R, the authors have produced a protocol that only allows those who have been trained by the authors to use the tool, which precludes individuals from being able to use the tool without adequate training (Heide et al., 2019).

UTILITY

111. Another difference is the information required to undertake an assessment, the SQAT is a self-administered questionnaire therefore it only requires information that is provided by the individual (Heide et al., 2019). Whereas all the other tools detailed are completed by the professional undertaking the assessment rather than the person being assessed.

112. Some of the tools encourage assessors to involve the individual whereas other assessments are completed indirectly, without the individual involved in the process. In terms of the ERG, assessors are encouraged to involve the individual being assessed to create a collaborative assessment (HMPPS, 2019). Similarly, to obtain the most reliable TRAP-18 assessment, three sources of data should be used: a direct interview (this may be clinical or non-clinical and may or may not involve psychometric testing); collateral interviews with those who know the individual and their behaviour; the individual's public records including law enforcement and national security documents if available (Meloy, 2019). Whilst a direct interview is helpful to gain information, it is noted that in a pre-crime situation, it may not be possible, necessary or wise (Meloy, 2019).

113. Practitioners should have the necessary training for using the tool(s) of their choice; be aware of their limitations and the caveats of their use; be in a position to discuss these and to evidence their assessment (RMA, 2019). Importantly, these limitations should be clearly outlined in the assessor's report to inform future decision-making. Above all, risk assessment tools should be used as part of a risk assessment process to inform rather than replace professional judgement (RMA, 2019).

8. RISK FACTORS

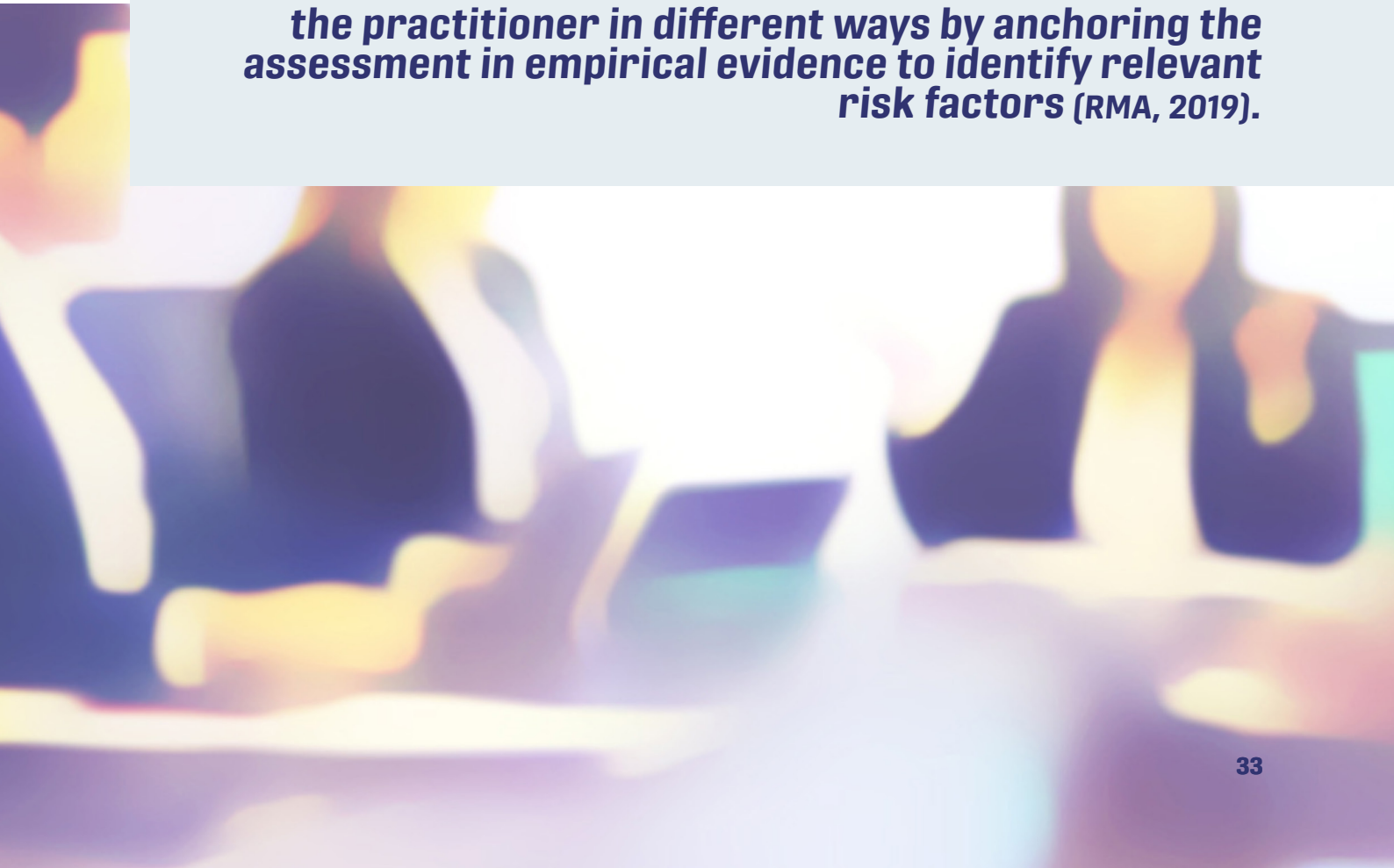
114. Risk factors are the basis of risk assessment tools thereby partly examined in the first section of this however; this sections aims to focus specifically on risk factors identified in the literature.

115. Risk factors can be described as something, which increases the likelihood of an outcome occurring, such as an individual engaging in terrorism (Smith, 2018). However, it is important to note that the presence of a risk factor or several risk factors does not mean an individual will commit an act of terrorism or engage in violent extremist behaviour.

116. Risk factors are either static or dynamic. Static risk factors are not amenable to change, e.g. age and race. As they are not amenable, the calculated risk level remains the same over time thereby the factors do not provide insight to psychological or behavioural changes (Copeland & Marsden, 2020; RTI International, 2018). Dynamic factors are amenable to change, e.g. attitudes. Dynamic factors may change over time or as a result of interventional methods and can provide an insight into changes which relate to risk (Copeland & Marsden, 2020).

117. From a review of the literature, Copeland and Marsden (2020) noted that there was a broad consensus on the risk factors associated with extremism, they note that the risk factors can be broken down into push factors (factors which drive individuals towards extremism) pull factors (factors which strengthen appeal of extremism) and personal vulnerabilities of the individual. Examples of push factors include social exclusion, unemployment, and injustice. Whereas pull factors include searching for belonging, peers and families as well as material and emotional rewards. Personal vulnerabilities might include low self-esteem, isolation and loneliness (Copeland & Marsden, 2020).

Risk assessment instruments are intended to assist the practitioner in different ways by anchoring the assessment in empirical evidence to identify relevant risk factors (RMA, 2019).



IDENTIFICATION OF RISK FACTORS RELATED TO TERRORISM

118. In a prior review, Monahan (2012) found that there was little empirical evidence of the risk factors related to terrorism and concluded that the highest priority for future research is the identification of valid and robust risk factors. In a later publication, Monahan (2017) synthesised recent research relating to four promising risk factors. Monahan (2017) details that there are different types of terrorism and it is expected that risk factors will differ. Thereby Monahan (2017) proposes that research should focus on jihadist/Salafist terrorism as an initial research priority therefore most of the research considered by the author relates to jihadist/Salafist terrorism.

119. Monahan (2017) noted that several promising risk factors for risk prediction have been identified, including *ideologies, affiliations, grievances, moral emotions* and *identities*. It is proposed that whilst *ideologies* is relevant, it cannot distinguish on its own who will and will not commit a terrorist act. Monahan (2017) notes that while personality traits are not proven to play a role, "boldness" as measured by Patrick and Drislane's (2015) boldness scale, may be relevant. *Affiliations* refer to friendship, kinship, and romance. It is suggested many join terrorist organisations with friends or family, or find romantic partners/marry into families through these organisations. The evidence suggest these affiliations play a role in developing terrorist ideology and translating this into terrorist acts. Assessment should therefore look at close associations and not just focus solely on the individual. *Grievances* refers to both group and individual grievances, and individuals can often have both. This may be especially relevant when it relates to death of a loved one from military actions by a perceived enemy. *Moral Emotions* relates to a group's "sacred values" – there is a backfire effect when groups are asked to compromise their sacred values in exchange for material goods or money, but violent opposition has been shown to decrease when a perceived enemy compromises over their own sacred values. *Identities* uses the theory of identity fusion, when people feel "oneness" with a group and feel they have shared core characteristics, to the point that personal and social selves become blurred. Monahan (2017) concludes by addressing the challenges of validating risk factors noting that it may be impossible to access or interview known terrorists and obtain data about them.

120. Novikov and Koshkin (2019) detailed that terrorism is the result of various factors and conditions. Risk factors relating to terrorism were identified through a questionnaire that was completed by the academic community as well as law enforcement individuals who work within the security sector in Russia. Novikov and Koshin (2019) identified 72 causes of terrorism, which were translated into a questionnaire featuring 71 questions relating to risk factors, this resulted in the identification of 18 major risk factors associated with the emergence of terrorism. Risk factors include social (e.g. unemployment, religious radicalism, high crime rate), political (e.g. bureaucracy in government, unwillingness of the state to execute laws, poor judicial system) and individual (e.g. access to firearms and explosives, heterogeneity and inequality) factors (Novikov & Koshkin, 2019)[18]. The authors offer detail in relation to each identified risk factor. For example, it is detailed that if there is no legal way to earn a living, individuals will resort to illegal means and that poverty plus income equality results in frustration plus deprivation making an individual more vulnerable to terrorist exploitation hence why unemployment is identified as a risk factor (Novikov & Koshkin, 2019). The authors note that the factors don't represent a deterministic set of risks or an established profile of Russian terrorism but instead, an opinion of the expert community about the common causes of radicalisation and transition to violence (Novikov & Koshkin, 2019). The authors propose that to curb terrorism, governments need to try to eliminate the factors underlying it to create a safe environment.

[18] The full 18 factors from the Novikov and Koshkin (2019) study were – *1. High level of unemployment; 2. Corruption; 3. Organised crime and criminal networks; 4. Access to firearms and explosives; 5. Poor judicial system; 6. Heterogeneity and inequality; 7. Bureaucracy in government; 8. Terrorist access to funding; 9. Infringement, violation or non-fulfilment of the constitutional rights and guarantees; 10. Unwillingness of the state to execute laws; 11. Dishonest and disloyal administration/leaders in relation to the country and the people; 12. Inefficient law enforcement mechanisms; 13. Religious radicalism and the spread of sectarianism; 14. High crime rate; 15. Lack of social self-defence mechanisms; 16. Lack of systemic analysis of tactics, methods and procedures used by terrorists; 17. Underdevelopment of civil society, and; 18. Negative public perception of government actions.*

IDENTIFICATION OF RISK FACTORS FOR RADICALISATION

121. Researchers have strived to identify the characteristics of individuals engaging in terrorism offences and understand the risk factors related to terrorism, however radicalisation has become more of a focus in recent years (Wolfowicz et al., 2020). Radicalisation has been referred to as one of the most important sub-fields of terrorism research (Neumann & Kleinmann, 2013). There are several challenges that have affected the development of the radicalisation evidence base including uncertainty on how best to measure radicalisation, a lack of systematic analysis of the evidence base, which at times has been contradictory, and lastly, little is known about the relative weight or clustering of risk and protective factors (Wolfowicz et al., 2020). The studies discussed here aimed to identify risk and protective factors related to radicalisation.

122. Spitaletta (2013) aimed to dispel myths regarding mental illness and terrorism as well as propose several psychological risk factors related to individual radicalisation. According to Spitaletta (2013) those who suffer from severe mental illness typically find it challenging to fit into teams and larger organisations however there are examples of terrorists who have exhibited symptoms of mental disorders. It is detailed that these individuals are often 'lone wolf' terrorists as they have difficult integrating into groups however it is emphasised that psychopathology is rarely the proximal factor in the transformation from law abiding citizen to someone willing to engage in violent behaviour (Spitaletta, 2013). Instead, it like most likely to be a combination of underlying psychopathology and other conditions. Whilst some have suggested an association between personality disorder and terrorism, Spitaletta (2013) details that psychopathic traits would likely render an individual unsuitable for a terrorist organisation as they are often unconcerned with group objectives and are often unreliable.

123. Spitaletta (2013) proposes the following as potential risk factors: *emotional vulnerability, humiliation, positive views of violence/history of violence* and *resonant narrative*. While evidence does not support that an individual with an emotionally unstable personality is at greater risk of radicalisation, difficulty in managing a response to trauma or other significant event (distress intolerance) is associated with greater risk. The author details that a desire for revenge in the context of *humiliation* can predispose a person to violence. Stripping an individual of their dignity can provide a rationale for violence and a desire to defend the dignity of anyone in the person's in-group. This is proposed to be particularly relevant in cultures that highly value the concept of honour. Perhaps unsurprisingly, *previous violent behaviour* and a belief that there is nothing inherently wrong with committing violence against the state are associated with radicalisation. Narratives about a grievance can foster shared beliefs about the grievance, the out-group who caused the grievance, and motivation to devote resources to address the grievance. Similar to other authors, Spitaletta (2013) advised that further research is required to validate risk factors, as gaining a better understanding of risk factors is essential to counter-terrorism efforts.

124. Macdougall, van der Veen, Feddes, Nickolson and Doosje (2018) aimed to identify psychological variables that contribute to recruitment in terrorist organisations and reasons individuals may endorse violent organisations. Two studies were conducted; the first study explored the relationship between psychological needs and risk factors related to radicalisation. Whereas the second study examined what attracts individuals to violent organisations. The authors propose that four types of radicalising individuals can be distinguished which includes; identity seekers, justice seekers, sensation seekers and significance seekers. Identity seekers are those who are identified by emotional uncertainty and a need to belong whereas justice seekers are looking to rectify perceived unjust treatment against them. Sensation seekers are those with a need for sensation and significance seekers are those who need existential meaning have a need for status (Macgougall et al., 2018).

125. In relation to the first study, 179 participants from the US completed a survey online, the survey was comprised of seven psychological need scales and six risk factor scales. The results found that the scales used were reliable and that emotional uncertainty, need to belong, justice seeking and the need for existential meaning are psychological needs associated with risk factors. The second study aimed to test whether individuals are attracted to organisations that cater to their needs and explore whether those more at risk of radicalisation in terms of risk factors support violent organisations to a greater extent. A total of 183 participants were recruited from public spaces and the same 13 scales used in the first study were administered however items were omitted to keep the survey succinct. Participants were asked to read fake Facebook messages that were either violent or non-violent and that catered for one of the four types proposed above. It was found that those with a stronger need for justice expressed stronger support for organisations that fight for justice and those with stronger desires for status viewed organisations that provide status and recognition more favourably. Interestingly, the identity seeking and sensation seeking constructs in addition to the construct of 'meaningful existence' failed to predict support for their respective organisations. The results indicate that needs for justice and status may motivate individuals to connect with violent organisations. The authors propose that alternate activities may prevent individuals from becoming radicalised but this would only happen through understanding an individual's needs and tailoring alternative activities to address such needs (Macdougall et al., 2018). For example, those who desire status could join a sports club, which would provide an opportunity to gain respect from peers (Macdougall et al., 2018).

126. Campelo, Oppetit, Neau, Cohen and Bronsard (2018) aimed to examine the profiles of European adolescents and young adults who have embraced radical Islamism. The authors conducted a systematic search and identified 22 publications from different fields. Campelo et al. (2018) propose a three level model to explain predominantly Islamic radicalisation amongst young Europeans, which is comprised of individual risk factors, micro-environmental factors and societal risk factors –

    - Individual risk factors include psychiatric disorders, personal uncertainty and perceived injustice. Various personality traits without diagnoses were also identified (e.g. Bazex, Bénézech & Mensat, 2017). Other studies have commented trait or *psychological vulnerabilities* such as depressive tendencies can lead to radical commitment as a soothing mechanism (e.g. Rolling & Corduan, 2017). In its extreme form it is possible that radicalism can hide *suicidal intentionality* (Benslama, 2016; as cited in Campelo et al., 2018). *History of addictive behaviours* could be another individual factor with dependence on a group replacing substance addiction (Bénézech & Estano, 2016; Ludot, Radjack & Moro, 2016). *Adolescence* itself has been considered a risk factor for radicalisation; attributed as being a period of identity searching where radicalism can offer a sense of belonging (Dhami & Murray, 2016; Rolling & Corduan, 2017). The role of identity searching also relates to why *personal uncertainty* can be considered a risk factor (Benslama, 2016; as cited in Campelo et al., 2018). *Perceived injustice* has been consistently cited as a risk factor (e.g. Bazex, Bénézech & Mensat, 2017; Doosje, Loseman & van den Bos, 2013; Moyano & Trujillo, 2014). Other authors place importance on the role of a *triggering event* that can lead to acting out or reinforcement of commitment, examples include; bereavement, relationship separation, or discrimination experiences.

    - Micro-environmental risk factors (family and proximal environment) include relationships with radicalised individuals or family dysfunction. One such risk factor could be *fragility and failure of the family group* (Bazex & Mensat, 2016; Khosrokhavar, 2014; Rolling & Corduan, 2017). One particular study (Bazex et al., 2017) found that a large proportion of a sample of 112 had experienced significant parental difficulties involving an absent father and a mother whose integrity was under attack. They argue such experiences lead back into *identity disturbance* and *uncertainty*. Another relationship factor could be *friendship or admiration towards a member of the radical group* (Bazet & Mensat, 2016;

Schuurman & Horgan, 2016). Recruitment techniques have also shown some similarities across different radical groups, with Dayan (2015) commenting on the use of narcissistic gratification, debts based on morality, real or imagined threats and progressively setting aside personal support networks. Bouzar (2014) describes the four steps of, 1) isolation from the environment, 2) converting from a unique individual personality to one that benefits the group, 3) adherence to the ideology, and 4) dehumanisation of the subject and future victims.

- Macro-environmental risk factors (cultural and societal environment) relate to geopolitical events or societal changes (Campelo et al., 2018). Social polarisation, in terms of unequal socioeconomic conditions, is seen as contributing to radicalisation. Another example of a societal risk factor is *perceived group threat* (Doosje, Loseman & van den Bos, 2013). This could be symbolic, realistic or intergroup anxiety. *Geopolitical context* is also described as a risk, with aspects like territorial and propaganda control providing a platform to legitimise the ideology (Bouzar & Martin, 2016; Khosrokhavar, 2014).

127. The Campelo et al. (2018) study is helpful because it is a detailed multidisciplinary systemic literature review covering a significant period of time. It also encompasses quantitative and qualitative studies. However they also acknowledge that due to there being few empirical studies on terrorism and radicalisation the inclusion criteria for different populations can vary significantly. Furthermore many of the reviewed studies have a small sample and therefore raise questions around generalisability. It should also be noted that many of the studies they included used samples of youths who had committed violent acts and had a criminal history; which is acknowledged as not necessarily being representative of the current radicalised population. Considering this study was published several years ago it demonstrates how quickly the population, characteristics and associated risk factors are evolving. Furthermore, the majority of the samples in this study included men and it should be noted that there is a growing number of radicalised women.

128. Smith (2018) authored a review examining what research supported by the National Institute of Justice has found about risk factors and indicators associated with radicalisation to terrorism in the United States. Smith (2018) details that some of the research referred to might have used the same participants thereby the similar findings may be attributed to the fact the studies included some of the same individuals. Potential risk factors associated with engaging in or attempting to engage in terrorism amongst group-based and lone-actor terrorists included; *being unemployed, being a loner, a history of criminal violence and more*[19]. Five potential risk factors were identified in studies examining solely lone-actor terrorists, which included li*ving alone, having at least a bachelor's degree and being male*. Those three risk factors were more prevalent amongst the sample than the general US population, the two other risk factors were not identified based on comparison with those that have not engaged in terrorism therefore they are more tentative and include *personal and political grievances and having an enabler.*

129. Ahearn, Bhui and Jones (2019) aimed to identify factors relating to extremist attitudes and potential signs of vulnerability to radicalisation. A cross-sectional survey was conducted with a sample of Pakistani and Bangladeshi men and woman in the UK of Muslim heritage. The final sample was comprised of 608 individuals aged between 18 and 45. Individuals were asked for their age, gender, ethnicity, country of birth, education level as well as questions about religion such as Respect for British Law and Sharia Law in addition to the importance of religion and mosque attendance. Physical health was assessed through four items adapted from an existing measure used for generalised anxiety disorder. Lastly, a 7-item scale designed to assess sympathy for terrorist acts was administered. Scores deemed to represent non-condemnation of such acts were considered to represent risk for radicalisation.

[19] The full list of risk factors among group-based and lone-actor terrorists in the U.S. from the Smith (2018) study were – *1. History of criminal violence, 2. Criminal history, 3. Been involved with a gang or delinquent peers, 4. Having a terrorist friend, 5. Active member of an extremist group for an extended period, 6. Deep commitment to an extremist ideology, 7. Psychological issues, 8. Unemployed, 9. Sporadic work history, 10. Less education, 11. Lower social economic status, 12. Failure to achieve one's aspirations, 13. Trouble in romantic relationships, 14. Trouble in platonic relationships, 15. Abused as an adult, 16. Distant from one's family.*

130. Multivariate regression[20] revealed that *anxiety, a sense of belonging to the local or global Muslim community* and *sympathy for violence* were strong predictors of terrorism sympathy. As sympathy for violence would appear to be a risk factor for radicalisation, Ahearn et al. (2019) study found no association for age and gender and there was no effect of general health on terrorism sympathy however an association between anxiety and terrorism sympathy was found with those with anxiety almost three times more likely to sympathise with terrorism. Whilst belonging to the local area and belonging to Britain were not found to be risk factors, sense of belonging to local and global Muslim community was found to be a risk factor for terrorism sympathy. Interestingly, there was no relationship between place of birth and sympathy for terrorism therefore the sense of belonging is not physically generated but instead through social networks and the media. Further research would be warranted particularly with a larger and more representative sample to improve generalisability of the results. As sympathy for violence would appear a risk factor for radicalisation, Ahearn et al. (2019) conclude by recommending that research is conducted to assess rates of terrorism sympathy with a sample of individuals convicted of violent offences from the UK prison population.

131. A systematic review by Wolfowicz, Litmanovitz, Weisburd and Hasisi (2020) reviewed risk and protective factors for different outcomes of radicalisation. The review aimed to quantify the effects of all factors and then differentiate between those relating to radical attitudes, intentions and behaviours to better understand which factors may be most important and the effects on different outcomes. Wolfowicz et al. (2020) conducted a meta-analysis using pooled estimates as a means of quantifying the effects of all risk and protective factors. A rank order of effect sizes was then created in order to try and identify the importance of each factor. Socio-demographic factors were the most commonly examined yet were found to have among the smallest and occasionally non-significant effects. However, estimates for *age* and *unemployment* were almost three times as large for radical behaviours in comparison to radical attitudes suggesting these factors may differentiate those who have radical attitudes and those who may engage in radical behaviours. The largest effect sizes were found for factors that could be considered as traditional criminogenic factors and this includes *low self-control, thrill-seeking/risk-taking* and *attitudinal* factors where radical attitudes were found to have the largest effect on radical intentions and behaviours. A limitation of the study is the fact the included studies were observational in nature, which means conclusions regarding causality should not be drawn.

RISK FACTORS FOR VIOLENT EXTREMISM

132. Clemmow, Schuman, Salman and Gill (2020) conducted a study to develop base rates, which included comparing methods of developing base rates in addition to producing base rates in a general population sample and comparing these to a sample of lone actor terrorists. The authors detail that a challenge in the study of violent extremism and undertaking risk assessment is that there has been no attempt to measure how often such behaviours occurs in a non-extremist population (Clemmow et al., 2020). The first aim of the study was to examine methods of developing base rates; this was conducted by examining surveying 2108 individuals from the general population who were recruited from an online survey and assigned to one of three conditions: direct questioning, control group or UCT[21]. The survey items were based on a lone actor terrorist codebook that had been informed from the wider literature. It was found that direct questioning was more promising whereas UCT resulted in deflation effects.

[20] This is a statistical technique used to measure the degree to which more than one predictor / independent variable and more than one dependent variable / responses are linearly related. It is used to try and predict the behaviour of responses associated to changes in the predictors.

[21] Unmatched Count Technique (UCT) is a form of indirect questioning where respondents are asked to identify items in a list of statements that apply to them, offering the respondent greater anonymity in comparison to direct questioning.

133. In terms of the second aim of the study, the general population sample was compared to a sample of lone-actor terrorists (n=-125). The terrorist sample included data from 125 people who acted alone in planning or carrying out an attack in service of an ideology. The sample carried out or planned attacks in the US, Europe or Australia, between 1990 and 2015 and were either convicted of the offence or died during attempt. Comparing the base rates found significant differences between the lone-actor terrorist sample and the general population sample. It was found that lone-actor terrorists were significantly more likely to have *criminal convictions, more likely to have been in prison*, have a *history of substance use, demonstrate thrill seeking, low self-control* and be *unemployed*. Lone-actor terrorists were more likely to display indicators inferred as proxy measures for *cognitive vulnerability*. Perhaps unsurprisingly, they were also more likely to express a desire to hurt others. Whereas the general population were more likely to experience distal stressors such as being the victim of bullying or experiencing chronic stress. However, they were also found to have factors that could be considered protective from criminal behaviour such as *being employed, attending university, having children and great educational attainment*. The study had limitations including that the data was drawn from open-source material, which could be unreliable, biased or incomplete. The authors conclude by noting that the research should look to replicate the findings as this has implications for risk assessment.

RECIDIVISM

134. One study by Hasisi, Carmel, Weisburd and Wolfowicz (2020) aimed to establish base rates of terrorist recidivism and test the effects of routinely examined factors known to influence criminal recidivism. The study utilised data provided by the Israel Prison Service (IPs). Individuals convicted of terrorism are classified as security prisoners and the data included information about all security prisoners imprisoned between 2004 and 2017. Proportional hazards regressions[22] were conducted to assess which factors independently contribute to the risk of terrorism related recidivism for individuals involved in their first terrorism offence, or for individuals involved in repeat offences. Hasisi et al. (2020) reported that previous imprisonment for terrorism offending increased the risk of future imprisonment for terrorism offending; demonstrating overlaps with the literature on reoffending for other types of offending. Hasisi et al. (2020) found that the recidivism rate of individuals involved terrorism offences was higher in comparison to individuals involved in general offending however, sentence length and age at time of release were found to lower risk of recidivism. Affiliation with a terrorist organisation significant increased the risk of recidivism. A limitation of the study is that the sample was comprised solely of males therefore the findings cannot be generalised to females. The authors suggests future research should include individuals convicted of terrorism offences from different countries in addition to different types of terrorists such as lone-actors and group-based to better understand the different risk factors for different types of individuals and their offences.

[22] This is also known as Cox regression. It is used to investigate the effect of several variables upon the time that a specified event takes to happen.

SOCIAL NETWORKS

135. The internet and social networks may be used by terrorists and violent extremists for a variety of reasons. Left-wing and anarchist terrorists as well as violent extremists have been described as using websites as a means to spread ideology, exchange ideas and post claims of responsibility (EUROPOL, 2020). Radicalisation has become more of a transnational risk as technology and social networks have improved with some terrorist groups using new technologies as a means to radicalise and recruit individuals (Gilperez-Lopez, Barhamgi and Camacho, 2017). As detailed below, two studies examined whether risk factors and social networks.

136. In an article by Gilperez-Lopez et al. (2017), the authors identified risk factors associated with violent information and presented information about RiskTrack, a software tool developed to assess an individual's risk of becoming radicalised by analysing social media profiles. The authors detail that there is no consensus about the phases of radicalisation however there are risk factors that can be identified throughout the process. From a review of the literature, Gilperez-Lopez et al. present 13 risk factors including age (<30 for men, <25 for women), origin (being a second or third generation immigrant), *education level, mental health, psychological factors, discrimination and victimization, attitude towards politics, attitude towards terrorism, exposure to radical content, trip to a conflict zone, radical language use, relationships with radical individuals* and lastly, *leaders influence*. It is proposed a large part of the radicalisation process will take place online therefore the RiskTrack project aims to provide a solution to combat this problem. The goal of RiskTrack is to detect radicalisation factors and measure the risk of becoming a jihadist terrorist by analysis of an individual social media profile.

137. Lara-Cabrera, Gonzalez-Pardo and Camacho (2019) reviewed a set of indicators to assess the risk of radicalisation in social networks. The study adopted Social Network Analysis (SNA), applying SNA to detect and extract behavioural patterns towards building a behavioural model that represents members of the social network. Lara-Cabrera et al. (2019) identified five indicators that can be split into two domains: *personality and interpersonal relationships*, and *attitudes and beliefs*. Personality indicators include: "*the individual is frustrated*," and "*the individual is introverted*." Attitudes and Beliefs indicators include "*perception of discrimination for being Muslim*," "*expressing negative ideas about Western society*," and "*expressing positive ideas about jihadism*." The indicators were derived from experts on radicalisation and are focused on behaviour expressed in social networks (Lara-Cabrera et al., 2019). It was found that the metrics performed generally well in terms of highlighting radicalised users. Lara-Cabrera et al. (2019) found that writing longer tweets, swearing, using words with negative connotations, perceiving discrimination, expressing positive ideas about jihadism, and expressing negative ideas about Western society are more likely in users who are radicalised or at risk of radicalisation.

9. RISK FACTOR SUMMARY

138. Several authors emphasised that risk factors may differ for types of terrorism, risk factors for one type may not be predictive for another type of terrorism (Sarma, 2017). In other words, "*it is entirely plausible to expect risk factors joining the Irish Republican Army to differ in ways large and small from risk factors for joining the Taliban*" (Monahan, 2017, pp. 521).

139. The research explored in this review identified interesting findings regarding potential risk factors. In a review, Smith (2018) detailed that history of criminal violence was a potential risk factor associated with engaging in or attempting to engage in terrorism amongst group-based and lone-actor terrorists. However, others have suggested that whilst previous violent behaviour is thought to be a reliable predictor for non-terrorism related offending, for many extremists their first engagement in violence may be when carrying out a terrorist attack (Copeland & Marsden, 2020). It may be that prior criminal history has been a relevant factor in relation to an individual's risk of terrorism (and one that when present it shouldn't be ignored) but it is possibly a factor becoming less necessary and less representative of the current radicalised population.

140. Additionally, Smith (2018) proposed there might be differences in the role of education and engaging in either group-based or lone-actor terrorism. Interestingly, having less education was identified as a risk factor in a sample containing group-based and lone-actor terrorists whereas having at least a bachelor's degree was identified as a potential risk factor in a sample of lone-actor terrorists.

141. Unemployment was also identified as a potential risk factor for lone-actor terrorists (Clemmow et al., 2020; Smith, 2018). The review by Wolfowicz et al. (2019) found that the estimates for age and unemployment were almost three times as large for radical behaviours in comparison to radical attitudes suggesting this could differentiate between those who have radical attitudes and those who may engage in radical behaviours.

142. Spitaletta (2013) linked previous violence to attitudinal factors and, perhaps unsurprisingly, identified previous violent behaviour and a belief that there is nothing wrong with committing violence against the state as being associated with radicalisation. In a study conducted by Ahearn et al. (2019) s*ympathy for violence* was identified as a potential risk factor radicalisation resulting in the recommendation that further research is conducted particularly amongst individuals involved in general violence to assess levels of terrorism sympathy.

143. Smith (2018) proposes that accurately predicting whether individuals will engage or attempt to engage in terrorism is an unlikely goal however using risk factors to assess the likelihood that an individual of concern may engage in such is more realistic. Research comparing the prevalence of risk factors in the general population with extremists or those of concern is required, without such, it is difficult to know how reliable identified risk factors are (Copeland & Marsden, 2020). Further research is required to validate risk factors especially those commonly included in risk assessment tools.

10. LIMITATIONS OF REVIEW

144. Many of the studies detailed are retrospective in nature, and as such, hindsight bias, confirmation bias and observational bias may have impacted the results (Goodwill & Meloy, 2019; Meloy et al., 2015; Meloy & Gill, 2016;). Few studies included females therefore more research is required to examine the applicability of tools with females. The study conducted by Powis et al. (2019) suggested that women may have different motivations to men therefore more research is needed to examine the validity of the ERG22+ with females as well as those who support differing groups, causes and/or ideologies. There is also limited research for young people, although the Campelo et al. (2018) review contributes from a theoretical viewpoint of trying to understand some of the factors specifically relevant to adolescence.

145. The main criticism of the tools detailed in this review is the lack of published, empirical evidence that support their validity (Monahan, 2012). Validation relates to the predictive abilities of the instrument where there is strong statistical and empirical confidence that the tool is performing in the way that it was designed to do so (RTI International, 2018). Risk assessment tools are difficult to validate however, the rare nature of terrorism adds additional challenge. Risk assessment tools cannot be validated through the typical method of prospective validation therefore; research must examine known group comparisons as a means of validation (Monahan, 2017).

146. The accuracy and validity of any risk assessment is dependent on the quality of information obtained (Pressman & Flockton, 2012). Individuals may refuse to cooperate and assessors may have limited or poor information available. Ultimately, the effectiveness of any tool is dependent on the information available to the assessor (RTI International, 2018). To obtain the most reliable TRAP-18 assessment, three sources of data should be used: a direct interview (this may be clinical or non-clinical and may or may not involve psychometric testing); collateral interviews with those who know the individual and their behaviour; the individual's public records including law enforcement and national security documents if available (Lloyd, 2019). Whilst a direct interview is helpful to gain information, it is noted that in a pre-crime situation, it may not be possible, necessary or wise (Meloy, 2019; Lloyd, 2019). In line with FRAME, risk assessments should be based on the best available information, which should be fathered from a variety of sources (Risk Management Authority, 2011).

147. It should also be noted that due to this being a rapid review of the literature it was not possible to establish a quality check for the studies included. Time restraints also mean that there may be relevant studies that exist which could contribute meaningfully to this review. As noted earlier in the review, Logan and Lloyd (2018) referred to there being two tiers of practice in relation to risk of violent extremism, one that is in the public domain and one that is not. Certain agencies and professions are unable to share their work or their processes, unless legally compelled to do so, as this may risk subjects of interests learning about their methods (Logan & Lloyd, 2018).

11. IMPLICATIONS FOR PRACTICE

148. The final section of this review is focused on what can be drawn from the literature to inform practice. This consists of observations on the literature, reference to need for future research, and considering what can be applied from current frameworks –

- The majority of the tools discussed have adopted an SPJ approach. This is line with developments around risk assessment. This is particularly important when considering the need to link assessment to risk management; through providing an individual formulation, scenario planning and suggested strategies.

- Risk assessment of terrorism or radicalisation should be using specialist tools. Research may indicate some similarities in factors underpinning terrorism in comparison to more general violence but there are clearly significant differences that should be considered specifically in relation to terrorism or radicalisation.

- There isn't enough research to clearly indicate which tool is best. The VERA-2R, ERG22+ and TRAP-18 appear to be promising with some inclinations of reliability and validity evidence beginning to emerge. However significantly more research is required across nations, cultures, age groups, gender and ideologies. Such research will continue to be disadvantaged by extremely low base rates and retrospective validation may be the only feasible pathway. Lloyd (2019) also comments on the challenges presented by socio-political context, the breadth of agencies involved, and the differing skillsets, experience and approaches.

- When selecting and using a tool practitioners should ensure they seek appropriate training. As there is no specifically recommended tool this provokes the complication of potentially needing to have training across several tools so that an appropriate one can be selected on an individual basis. The selection process might be informed by what information will be available (and what is necessary to effectively use a tool), the relevant ideology, and whether it is terrorism or radicalisation that is being assessed. In terms of practitioner competence there is a need for those working in this field (e.g. conducting assessments) to have a good understanding of what does exist in relation to the risk and protective factors relevant to terrorism and radicalisation.

- Leading on from the previous implication, practitioners should be clear on what is being assessed, e.g. vulnerability, risk of radicalisation, risk of terrorism. Furthermore practitioners should be clear on the specific ideology being considered. Assessors need to understand what that means and be mindful of specific cultural variables or associated limitations to the assessment. Understanding the individual is critical to any assessment but the relevant systems they function within are also critical. This may be even more relevant when considering younger individuals and the potential links between brain development, social vulnerability and risk of radicalisation.

- As a guide it may be helpful to understand risk factors across individual, social and political domains; although there is clearly a need for further research in relation to risk factors across terrorism and radicalisation as well as different ideologies.

- One study comments on potential protective factors relating to things like employment, education, children and achievement. However there is generally minimal evidence regarding protective factors in terms of understanding what keeps people away from radicalisation, or what makes some people more or less vulnerable.

- Scottish research is particularly necessary to consider the sensitivities and relevant characteristics within this population. Currently the development sample of the ERG22+ (i.e. UK) appears to be the closest. The development of the ERG22+ was informed by a comparative analysis of the criminogenic profiles of individuals involved in extremist offending compared to individuals engaged in general offending from Offender Assessment System (OASys)23 group data.

- It should be noted that the population relating to radicalisation or terrorism may be changing. Some studies have commented on the changing characteristics of particularly younger people who are radicalised. It may be that technological factors like social media play a role that may need to be better understood.

- As detailed by Logan and Lloyd (2019) the field of violent extremism requires standards of practice. They suggest that the FRAME guidance (Risk Management Authority, 2011) can be applied. FRAME provides an approach that can support evidence-based and proportionate assessment and risk management. It outlines an approach of identification, analysis, evaluation and communication with risk assessment that includes principles and guidance that can support practitioners regardless of the purpose of a risk assessment. Some of the specific considerations in relation to terrorism and radicalisation assessment might be –

  i. *Identification* is about gathering information from as many sources as possible. In relation to terrorism or radicalisation assessment, this may mean using different sources of information and needing access to information that may be deemed relevant to national security. Some of the tools discussed here (e.g.TRAP-18) require significant information to be available and so a significant barrier might be an assessor not being able to access information due to security reasons. Stating limitations becomes even more important in the context of these assessments; with potential tool limitations, the uncertainty of risk prediction (and the potential consequences related to these assessments), and potential limitations on sources of information.

  ii. *Analysis* involves using risk tool outcomes and considering context and relevance to an individual to produce a meaningful narrative explanation of risk. Risk tools are useful however; they should be viewed as one part of the risk assessment process. Most of the tools discussed in this review adopt SPJ guidelines and will assist with this process. Risk tools should not be viewed as complete solutions to the challenges associated with risk although they can assist in identifying and structuring assessment as well as making assessments as informed as possible (Copeland & Marsden, 2020).

  iii. The concept of push and pull factors, as well as personal vulnerability factors (Copeland & Marsden, 2020) may theoretically and practically helpfully inform a structure to formulation. Such a formulation has to be mindful of the factors sensitive to terrorism or radicalisation. Factors like mental health and personality disorder might not be as relevant as they are in other types of offending.

  iv. *Evaluation* is about considering the relevant risk criteria. As such the assessment has to be clear on what the purpose of the assessment is (i.e. radicalisation, terrorism). The risk of serious harm definition used in Scotland – "*the likelihood of harmful behaviour of a violent or sexual nature, which is life threatening and/or traumatic, and from which recovery, whether physical or psychological, may reasonably be expected to be difficult or impossible*" – can apply in instances where there are concerns regarding prospective behaviour, e.g. risk of terrorism. However it may be difficult to infer a risk of serious harm level from solely an assessment regarding risk of radicalisation.

  v. *Communication* relates to the outcomes of the assessment and involving the relevant partners and the individual. In this type of assessment it might mean elevated

concerns around who to speak to, particularly if an assessment raises national security concerns. Shared language is vital to effective multi-agency working to manage risk. As such maintaining the use of the risk of serious harm levels may be helpful as this is recognised across MAPPA, and for the multi-agency partners included; police, social work, and SPS.

vi. Risk assessment should inform risk management. Logan (2017) and Logan and Lloyd (2019) discuss how the two processes are co-dependent and as such one informs the other. Managing significant risk is a multi-agency responsibility which is even more relevant to managing violent extremism. Therefore effective partnership working that is commensurate to risk, and where everyone is aware, mindful and respectful of differing responsibilities, motivations and systems is going to be critical. Please see an associated paper by the Risk Management Authority (2021) on a review of current risk management approaches to radicalisation and terrorism.

- Based on the above it may be beneficial to consider a triage approach to the various relevant behaviours within the domain of assessing risk. This would be based on identifying and carrying out a proportionate level of assessment in relation to potential concerns. Initial assessments could be focused at assessing an individual's vulnerabilities. For those individuals where their vulnerabilities have already led to concerns around their behaviour then a more in depth assessment could specifically look at the risk of that person being radicalised. Finally for those expressing terrorist ideologies and there are concerns over their likelihood to commit an act of violence then a scrutiny level of assessment could be done; specifically assessing the risk of terrorism and violence.

REFERENCES

Ahearn, E. R., Bhui, K., & Jones, E. (2020). What factors are truly associated with risk of radicalisation? A secondary data analysis within a UK sample. *Transcultural Psychiatry*, 1- 19.

Andrews, D. A., Bonta, J., & Wormith, J. S. (2006). The recent past and near future of risk and/or need assessment. *Crime & delinquency, 52*(1), 7-27.

Bazex, H., Benezech, M., & Mensat, J. Y. (2017, March). "*The mirror of hatred*". Prison treatment of radicalization: Clinical and criminological analysis of 112 persons under court. In *Annales Medico-Psychologiques* (Vol. 175, No. 3, pp. 276-282).

Bazex, H., Mensat, J-Y. (2016). Who are the French jihadists? Analysis of 12 cases to help develop profiles and assessment of the risk of acting act. *Annales Médico-Psychologiques, Revue Psychiatrique, 174*(4), 257–65.

Beardsley, N. L., & Beech, A. (2013). Applying the Violent Extremist Risk Assessment (VERA) to a sample of terrorist case studies. *Journal of aggression, conflict and peace research, 5*, 4-15.

Bénézech, M., & Estano N. (2016). In Search of a Soul: Psychopathology of Radicalization and Terrorism. *Ann Méd-Psychol Rev Psychiatr, 174*, 235–49

Borum, R. (1996). Improving the clinical practice of violence risk assessment: Technology, guidelines, and training. *American Psychologist, 51*(9), 945.

Borum, R. (2015). Assessing risk for terrorism involvement. Journal of Threat Assessment and Management, 2, 63–87.

Borum, R., Otto, R., & Golding, S. (1993). Improving clinical judgment and decision making in forensic evaluation. *The Journal of Psychiatry & Law, 21*(1), 35-76.

Bouzar, D. (2014). *Defusing radical Islam: those sectarian excesses that disfigure Islam*. Editions of the Workshop.

Bouzar, D., & Martin, M. (2016). Experimenting with Deradicalization: What Emotional and Cognitive Strategies? *Pouvoirs*, (3), 83-96.

Campelo N, Oppetit A, Neau F, Cohen D, Bronsard G. (2018). Who are the European youths willing to engage in radicalisation? A multidisciplinary review of their psychological and social profiles. *European Psychiatry, 52*, 1-14.

Centers for Disease Control and Prevention. (2015). *The social-ecology model: A framework for prevention*. Retrieved from http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html

Challacombe, D. J., & Lucas, P. A. (2019). Postdicting violence with sovereign citizen actors: An exploratory test of the TRAP-18. *Journal of Threat Assessment and Management, 6*(1), 51–59.

Clemmow, C., Schumann, S., Salman, N, & Gill, P. (2020). The Base Rate Study: Developing Base Rates for Risk Factors and Indicators for Engagement in Violent Extremism. *Journal of Forensic Sciences*, 65, 3, 865-881.

Cole, J., Cole, B., Alison, L. & Alison, E. (2019). Identifying Vulnerable People (IVP) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

Commission for Countering Violent Extremism. (2019). *Challenging Hateful Extremism*. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/874101/200320_Challenging_Hateful_Extremism.pdf

Cook, A. N. (2014). Risk Assessment and Management of Group-Based Violence. Simon Fraser University: Canada.

Cook, A. N., Hart, S. D. & Kropp, R, P. (2019). Multi-Level Guidelines (MLG Version 2) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

Copeland, S. & Marsden, S. (2020). *Extremist Risk Assessment. Centre for Research and Evidence on Security Threats.* Retrieved from https://crestresearch.ac.uk/resources/extremist-risk-assessment/

Dalgaard-Nielsen, A. (2008). *Studying violent radicalization in Europe I: The potential contribution of social movement theory.* Retrieved from http://www.econstor.eu/bitstream/10419/84630/1/DIIS2008-02.pdf

Dayan, J. (2015). Hate crimes. *Adolescence T, 33*(3), 613–640.

Dean, G. & Pettet, G. (2017). The 3 R's of Risk Assessment for Violent Extremism. J*ournal of Forensic Practice, 19*(2), 91-101.

DeAngelis, T. (2014). Fostering successful clinical supervision. *Monitor on Psychology, 45*(8), 42. Retrieved from http://www.apa.org/monitor/2014/09/clinical-supervision.aspx

Dernevik, M., Beck, A., Grann, M., Hogue, T., & McGuire, J. (2009). 'The use of psychiatric and psychological evidence in the assessment of terrorist offenders.' *Journal of Forensic Psychiatry & Psychology, 20*(4), 508–515.

Dhami, M. K., & Murray, J. (2016). Male youth perceptions of violent extremism: towards a test of rational choice theory. *The Spanish Journal of Psychology, 19*.

Doosje, B., Loseman, A., & Van Den Bos, K. (2013). Determinants of radicalization of Islamic youth in the Netherlands: Personal uncertainty, perceived injustice, and perceived group threat. J*ournal of Social Issues, 69*(3), 586-604.

Douglas, K. S., Hart, S. D., Webster, C. D., Belfrage, H., Guy, L. S., & Wilson, C. M. (2014). Historical-clinical risk management-20, version 3 (HCR-20V3): development and overview. *International Journal of forensic mental health, 13*(2), 93-108.

Dutch National Police. (2019). Islamic Radicalization (IR-46) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

European Union. (2020). *Terrorism Situation and Trend Report.* Retrieved from European Union Terrorism Situation and Trend report (TE-SAT) 2020 | Europol (europa.eu)

Garb, H. N. (1994). Toward a second generation of statistical prediction rules in psychodiagnosis and personality assessment. *Computers in Human Behaviour, 10*, 377-394

Greene, A. (2017). Defining Terrorism: One Size Fits All? *International and Comparative Law Quarterly, 66*, 1-30.

Gilpérez-López, I., Torregrosa, J., Barhamgi, M., & Camacho, D. (2017). "*An Initial Study on Radicalization Risk Factors: Towards an Assessment Software Tool*," 28th International Workshop on Database and Expert Systems Applications (DEXA), 11-16

Ginges, J. (2009). Toward a social cognitive theory of radicalisation. Retrieved from http://www artisresearch.com/articles/ARTIS_Theoretical_ Frames_August_2009.pdf

Goodwill, A. & Meloy, J. R. (2019). Visualizing the relationship among indicators for lone actor terrorist attacks: Multidimensional scaling and the TRAP-18. Behavioural Sciences & the Law, 37 (5), 522 – 539.

Grove, W. M., & Meehl, P. E. (1996). Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The clinical–statistical controversy. *Psychology, public policy, and law, 2*(2), 293.

Gudjonsson, G. H. (2009). The assessment of terrorist offenders: A commentary on the Dernevik et al. article and suggestions for future directions. *The Journal of Forensic Psychiatry & Psychology, 20*(4), 516-519.

Hall, J. (2020). The Terrorism Acts in 2018. Retrieved from: The Terrorism Acts in 2018 (publishing.service gov.uk)

Hall, J. (2020). Terrorist Risk Offenders: Independent Review of Statutory Multi-Agency Public Protection Arrangements. Retrieved from: supervision-terrorism-and-terrorism-risk-offenders-review.pdf (publishing.service.gov.uk)

Hanson, R. K. (1998). What do we know about sex offender risk assessment? *Psychology, Public Policy, and Law, 4*(1-2), 50.

Hart, S. D. (1998). The role of psychopathy in assessing risk for violence: Conceptual and methodological issues. *Legal and criminological psychology, 3*(1), 121-137.

Hart, S. (2010). 'Risk for Terrorism: A Multi-Level, Multi-Disciplinary Approach to Threat Assessment.' Paper presented at the American Psychology-Law Society Annual Conference, March 18 – 20, Vancouver.

Hart, S. D., Michie, C., & Cooke, D. J. (2007). Precision of actuarial risk assessment instruments: Evaluating the 'margins of error' of group v. individual predictions of violence. *The British Journal of Psychiatry, 190*(49), 60-65.

Hart, S. D., & Logan, C. (2011). Formulation of violence risk using evidence-based assessments: The structured professional judgment approach. *Forensic case formulation*, 83-106.

Herrington, V., & Roberts, K. (2012). *Risk assessment in counterterrorism*. In U. Kumar & M. K. Mandal (Eds.), *Countering terrorism: Psychosocial strategies* (pp. 282–305). London, United Kingdom: Sage.

HM Government. (2011). Prevent strategy. UK Government. Retrieved from https://www.gov.uk government/uploads/system/uploads/attachment_data/file/97976/prevent-strategy-review.pdf

HM Government. (2012). Channel: Vulnerability assessment framework. UK Government. Retrieved from https://http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118187/vul-assessment.pdf

HMPPS. (2019). Extremism Risk Guidance (ERG22+) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

Home Office. (2015). *Counter-Extremism Strategy.* Retrieved from https://assets.publishing.service.gov uk/government/uploads/system/uploads/attachment_data/file/470088/51859_Cm9148_ Accessible.pdf

Home Office. (2019). *Revised prevent duty guidance: England and Wales.* Retrieved from https://www.gov uk/government/publications/prevent-duty-guidance/revised-prevent-duty-guidance-for-england-and-wales

Institute for Economics & Peace. (2020). *Global Terrorism Index 2020 Measuring the Impact of Terrorism*. Retrieved from https://www.visionofhumanity.org/wpcontent/uploads/2020/11/GTI-2020-web-1.pdf

Johnstone, L., & Dallos, R. (2013). *Formulation in psychology and psychotherapy: Making sense of people's problems.* Routledge.

Kirk-Wade, E. & Allen, G. (2020). *Terrorism in Great Britain: the statistics*. Retrieved from https:/ commonslibrary.parliament.uk/research-briefings/cbp-7613/

Khosrokhavar, F. (2014). Reformist and moderate voices in European Islam. In *Reformist Voices of Islam: Mediating Islam and Modernity* (pp. 269-288). Routledge.

Klausen, J., Libretti, R., Hung, W. J. B., &. Jayasumana, P. A. (2020). Radicalization Trajectories: An Evidence-Based Computational Approach to Dynamic Risk Assessment of "Homegrown" Jihadists. *Studies in Conflict & Terrorism, 43*(7), 588-615.

Knudsen, R. (2020). Measuring radicalisation: risk assessment conceptualisations and practice in England and Wales. *Behavioral Sciences of Terrorism and Political Aggression, 12*(1), 37-54.

Lara-Cabrera, R., Gonzalez-Pardo, A. & Camacho, D. (2017). Statistical analysis of risk assessment factors and metrics to evaluate radicalisation in Twitter. *Future generation Computer Systems*, 1 -8.

Logan, C. (2014). The HCR-20 Version 3: A case study in risk formulation. *International Journal of Forensic Mental Health, 13*(2), 172-180.

Logan, C., & Lloyd, M. (2019). Violent extremism: A comparison of approaches to assessing and managing risk. *Legal and criminological psychology, 24*(1), 141-161.

Lloyd, M. (2019). Extremism Risk Assessment: A Directory. Centre for Research and Evidence on Security Threats (CREST). Retrieved from: https://crestresearch.ac.uk/resources/extremism-risk-assessment-directory/

Lloyd, M., & Dean, C. (2015). The development of structured guidelines for assessing risk in extremist offenders. *Journal of Threat Assessment and Management, 2*(1), 40–52.

Ludot, M., Radjack, R., & Moro, M. R. (2016). Jihadist radicalization and adolescent psychiatry. *Neuropsychiatr Enfance Adolesc, 64*, 522–8.

Macdougall, A. I., van der Veen, J., Feddes, R. A., Nickolson, A., & Doosje, B. (2018). Different Strokes for Different Folks: The Role of Psychological Needs and Other Risk Factors in Early Radicalisation. *International Journal of Developmental Science, 12*, 1-14.

McMurran, M., & Bruford, S. (2016). Case formulation quality checklist: a revision based upon clinicians' views. *Journal of Forensic Practice*.

Meehl, P. E. (1954). Clinical versus statistical prediction: A theoretical analysis and a review of the evidence.

Meloy, J. R. (2018). The operational development and empirical testing of the Terrorist Radicalization Assessment Protocol (TRAP-18). *Journal of Personality Assessment, 100*, 483-492.

Meloy, J. R. (2019). Terrorist Radicalization Assessment Protocol (TRAP-18) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

Meloy, J. R., Hoffman, J., Roshdi, R. & Guldmann, A. (2014). Some warning behaviours discriminate between school shooters and other students of concern. Journal of Threat Assessment and Management, 1 (3), 203 – 211.

Meloy, J. R. & Genzman, J. (2016). The clinical threat assessment of the lone actor terrorist. *Psychiatric Clinics of North America, 39*, 649-662.

Meloy, J. R., & Gill, P. (2016). The lone-actor terrorist and the TRAP-18. *Journal of Threat Assessment and Management, 3*, 37–52.

Meloy, J. R., Roshdi, K., Glaz-Ocik, J., & Hoffmann, J. (2015). Investigating the individual terrorist in Europe. *Journal of Threat Assessment and Management, 2,* 140–152.

Ministry of Justice. (2020). Counter Terrorism and Sentencing Bill. Impact Assessment. Available at: Impact Assessment (publishing.service.gov.uk)

Monahan, J. (1993). Limiting therapist exposure to Tarasoff liability: Guidelines for risk containment. *American Psychologist, 48*(3), 242.

Monahan, J. (2012). The individual risk assessment of terrorism. *Psychology, Public Policy, and Law, 18*(2), 167.

Monahan, J. (2017). T*he individual risk assessment of terrorism: Recent developments. The handbook of the criminology of terrorism* (pp. 520–534). Hoboken, NJ: John Wiley & Sons, Inc.

Moyano, M., & Trujillo H. M. (2014). Intention of activism and radicalism among Muslim and Christian youth in a marginal neighbourhood in a Spanish city. *Rev Psicol Soc, 29*, 90–120

Nasser-Eddine, M., Garnham, B., Agostino, K., & Caluya, G. (2011). *Countering violent extremism (CVE) literature review*. Counter Terrorism and Security Technology Centre.

Neumann P, Kleinmann, S. (2013). How rigorous is radicalization research? *Democracy and Security 9*(4),360–382.

Novikov, A., & Koshkin, A. (2019). Identification and analysis of major risk factors causing national terrorism. *Journal of Aggression, Conflict and Peace Research, 11*(3), 225-239.

Nowopolski, M., Banasik, M., & Gierowski, K. J. (2018). Warning behaviours and risk factors preceding acts of individual terrorism. *Problems of Forensic Sciences, 116*, 323-338.

Patrick, C., & Drislane, L. (2015). Triarchic model of psychopathy: Origins, operationalizations, and observed linkages with personality and general psychopathology. *Journal of Personality, 83*, 627–643.

Pressman, D. E. and Flockton, J. S. (2012). '*Applied Risk Assessment for Violent Political Extremists and Terrorists using the VERA 2.*' Paper presented to the British Psychological Society: Division of Forensic Psychology Annual Conference Terrorism Symposium, Cardiff, Wales, 28. 6. 2012.

Pressman, D. E., Dutis, N., Rinne, R. Flockton, S. J. (2019). Violent Extremism Risk Assessment Version 2 Revised (VERA-2R) Tool Entry. In Lloyd. M. Extremism Risk Assessment: A directory. Centre for Research and Evidence on Security Threats. Retrieved from: Extremism Risk Assessment: A Directory (crestresearch.ac.uk)

Proctor, N & Prior, T. (2019). Anti-Radicalisation Report 2019. Counter Terrorism Preparedness Network. Retrieved from https://www.london.gov.uk/sites/default/files/ar_report_web_ne_6.11.19.pdf

Qurashi, F. (2018). The Prevent strategy and the UK 'war on terror': embedding infrastructures of surveillance in Muslim communities. *Humanities & Social Sciences Communications, 4*, 1- 13.

Risk Management Authority. (2011). *Framework for Risk Assessment, Management and Evaluation*. Paisley: RMA.

Risk Management Authority. (2019). *Risk Assessment Tools Evaluation Directory (RATED)*. Retrieved from: RATED - RMA - Risk Management Authority

Rolling J, Corduan G. (2017). Radicalization, a new adolescent symptom? *Neuropsychiatry of Childhood and Adolescence, 66*(5).

Sarma, K. M. (2017). Risk assessment and the prevention of radicalization from nonviolence into terrorism. *American Psychologist, 72*(3), 278–288.

Sarma, K. M., & Pelzer, R. (2015). *Establishing an evidence base that can support the identification of individuals and networks transitioning into terrorism and organised crime (GENESIS)*. Ballsbridge, Ireland: Irish Research Council.

Scarcella, A., Page, R., & Furtado, V. (2016, December 21). T*errorism, Radicalisation, Extremism, Authoritarianism and Fundamentalism: A Systematic Review of the Quality and Psychometric Properties of Assessments*. Plos One.

Schmid, A. P. (2013). *Radicalisation, De-Radicalisation and Counter-Radicalisation: A Conceptual Discussion and Literature Review*. International Centre for Counter-Terrorism (ICCT), The Hague.

Schuurman, B., & Horgan, J. G. (2016). Rationales for terrorist violence in home-grown jihadist groups: A case study from the Netherlands. *Aggression and Violent Behavior, 27*, 55-63.

Silke, A. (2014). '*Risk assessment of terrorist and extremist prisoners*'. In A. Silke (ed.), *Prisons, Terrorism and Extremism: Critical Issues In Management, Radicalisation and Reform* (pp. 108-121). London: Routledge.

Smith, G. A. (2018). R*isk Factors and Indicators Associated With Radicalization to Terrorism in the United States: What Research Sponsored by the National Institute of Justice Tells Us*. National Institute of Justice. US Department of Justice.

Spitaletta, J. (2013). *Countering Terrorists: Psychological Risk Factors of Radicalisation*. In H. Cabayan, V. Sitterle, & M. Yandura (Eds.), Looking Back, Looking Forward: Perspectives on Terrorism and Responses to It (pp. 84-91). Strategic Multi-layer Assessment Occasional White Paper, Department of Defense.

Storey, E. J., Gibas, A. L., Reeves, K. A., & Hart, S. D. (2011). Evaluation of a violence risk (threat) assessment training program for police and other criminal justice professionals. *Criminal Justice and Behavior, 38*, 554 –564.

Wolfowicz, M. Litmanovitz, Y. Weisburd, D. & Hasisi, B. (2020). PROTOCOL: Cognitive and behavioural radicalization: A systematic review of the putative risk and protective risk factors. *Campbell Systematic Reviews, 16*(3) 1-15.

RMA

RISK MANAGEMENT AUTHORITY

7 Thread Street
Paisley
PA1 1JR

0141 278 4478
info@rma.gov.scot

www.rma.scot