Home Office

Understanding vulnerability and resilience in individuals to the influence of Al Qa'ida violent extremism

A Rapid Evidence Assessment to inform policy and practice in preventing violent extremism

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The views expressed in this report are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy).

Executive summary

Introduction

This report presents the findings of a Rapid Evidence Assessment (REA) of open source empirical studies that seek to answer two key questions:

- What factors, social, psychological and physical, make a person more *vulnerable* to participation in Al Qa'ida (AQ)-influenced violent extremism?

- What factors enable vulnerable individuals to *resist* the influence of AQ-influenced violent extremism?

This report also presents the findings from a second targeted REA on other relevant types of violent activity, including:

- other (non-AQ-influenced) types of terrorist activity;
- animal rights activism;
- cults;
- gangs;
- right-wing extremism; and
- youth crime.

The report discusses learning from these other areas and how far lessons learned can be applied to the study of AQ-influenced violent extremism.

Methods

Both REAs involved systematic searches of relevant electronic databases and hand searches of academic journals and websites. Additional relevant literature was identified by topic experts, peer reviewers, specific websites, and through backward and forward citation chasing.

Studies were included if they were based on empirical research, were relevant to the REAs' questions and were assessed to be of high scientific quality.

Summary of findings

The empirical evidence base on what factors make an individual more vulnerable to AQ-influenced violent extremism is weak. Even less is known about why certain individuals resort to violence, when other individuals from the same community, with similar experiences, do not become involved in violent activity. The following conclusions are based on the limited empirical evidence base identified by the two REAs.

Social factors that make a person or situation more vulnerable to AQ-influenced violent extremism

- Individuals involved in AQ-influenced violent extremism are demographically unremarkable and do not stand out as being different from other members of their communities.
- In the West individuals tend to be male, young to middle-aged, married and possibly with children.
- Individuals tend to be educated to a similar level and have similar socio-economic status as the broader population in which they live.
- There is some evidence that individuals may be working at a skill set lower than expected from their educational attainment.
- There is some evidence that women are increasingly becoming involved in terrorist violence in areas such as Chechnya and Palestine.

Psychological factors that make a person or situation more vulnerable to AQ-influenced violent extremism

- Individuals decide to engage in AQ-influenced violent extremist activity for multiple and varied reasons.
- Select religious beliefs were found to underpin engagement in AQ-influenced violent extremism and martyrdom.
- A deeply religious upbringing or education was not found to be a necessary precondition for involvement in AQ-influenced violent extremism – a large number of individuals involved in AQ-influenced violent extremism were found to have had a secular upbringing.
- Both religious and extremist beliefs were found to intensify as individuals became more involved in AQ-influenced violent extremism.
- A particular personal event or crisis can potentially lead to an individual re-evaluating previously held beliefs and being open to new ideas (cognitive-opening) – leaving the individual vulnerable to adopting extremist views if exposed to them, particularly from a close social contact.
- Individuals who engage in AQ-influenced violent extremism are no more likely to suffer from mental illness or personality disorders than the general population.
- Both political ideology and grievances are consistent motivating factors for driving engagement in AQ-influenced violent extremism. Individuals may act in vengeance for attacks or injustice acted out on themselves or people close to them.
- In the West, a more important driver than personal grievances may be perceived injustice and violence against Muslims around the world.
- Both material (monetary) and non-material (status, power, glory, and honour) rewards are also found to provide motivation for involvement in AQ-influenced violent extremism.

Physical factors that make a person or situation more vulnerable to AQ-influenced violent extremism

- Radicalisation to violent extremism remains overwhelmingly a social process.
- Family and friends not only provide links to AQ-influenced violent extremist groups, but they can also support and reinforce an individual's decision to join such groups.
- Through group dynamics and strong interpersonal bonds individual and group views can become progressively more extreme and violent.
- Charismatic leaders and individuals can play a central role in radicalising and recruiting individuals to AQ-influenced violent extremism. They provide a persuasive narrative and justification to potential recruits and can also facilitate individuals joining AQ-influenced violent extremist groups or networks through their various connections and links.

- Social settings and spaces are key to individuals becoming involved in AQ-influenced violent extremist groups.
- Settings and spaces are important as they provide safe environments where violent extremist groups can meet, relationships and bonds can be strengthened, extremist ideologies can be preached and reinforced, and recruitment of potential group members can take place.
- Mosques and prisons are frequently mentioned as key spaces for recruitment to AQ-influenced violent extremist groups. Other locations include educational establishments, cafes and bookshops. However, these are predominantly used as meeting points rather than places of recruitment.
- In recent years the increasing surveillance and policing of public spaces has resulted in the actual process of radicalisation and recruitment being largely driven to private spaces.
- The Internet can also play an important role in supporting radicalisation and recruitment to AQ-influenced violent extremist groups. It reinforces violent extremist ideological messages and enables individuals to find and communicate with like-minded individuals and groups. It also mirrors the dynamics of a social group, producing an environment where extreme views and ideas receive encouragement and support.

Factors that enable vulnerable individuals, groups and communities to *resist* the influence of AQ-influenced violent extremism

- From the little research that was identified, being well-educated and aware about other ethnic or religious groups and being financially stable were found to increase resilience to participating in AQ-influenced violent extremism.
- One study also suggests that, at least on a community level, experiencing violence does not necessarily lead to violent retaliation.

Factors that make a person more vulnerable or resilient to other types of violent activity

- The lack of evidence for consistent differences between the social background for AQ-influenced violent extremists and their peers is mirrored in the finding that there is no common type of participant in other forms of violent behaviour.
- Although background factors tended to differ across groups participating in other forms of violent activity, key similarities shared between AQ-influenced violent extremism and participation in other violence are:
  - the central role of social networks in recruitment to the group or activity;
  - the need for places to meet in order to share and develop the ideology or beliefs that underpin the group's identity;
  - group membership serves to reinforce a sense of alienation from mainstream society, perpetuating a 'them and us' mentality (particularly in relation to cults and other violent extremist organisations);
  - frustration with reduced socio-economic opportunities (particularly participants in gangs or youth crime); and
  - desire for vengeance and status within their group (particularly in relation to gangs or youth crime).
- Other social and psychological factors are clearly different between AQ-influenced violent extremists and participants in the other forms of violent activity studied, in particular:
  - family structure and stability;
  - educational attainment;

  - personality and psychiatric problems;
  - drug and alcohol abuse; and
  - previous criminal convictions.
- Little is known about what factors make other at-risk individuals resistant to becoming involved in violence.

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1. Introduction

In 2008 the UK Government launched the CONTEST II strategy, aimed at reducing the risk to the UK from international terrorism (HM Government, 2009). As part of the *Prevent* strand of this strategy, the Office for Security and Counter-Terrorism (OSCT) in the Home Office is responsible for coordinating efforts to prevent individuals participating in, or supporting, violent extremism.

This report, commissioned by OSCT Prevent, presents the findings of a Rapid Evidence Assessment (REA) of existing literature and research concerning the factors that make an individual vulnerable, or resilient, to participation in Al Qa'ida (AQ)-influenced violent extremism.

1.1 Context

Terrorism is not a new threat for the UK. More than 3,500 people were killed by terrorist acts in the UK between 1969 and 1998, mainly due to Irish terrorism (HM Government, 2009).

As detailed in the Government's counter-terrorism strategy, CONTEST II, the current international terrorist threat is quite different from the terrorist threats the UK faced in the past. The threat to the UK (and to many other countries) now comes primarily from four sources:

- the AQ leadership and their immediate associates;
- terrorist groups affiliated to AQ;
- 'self-starting' networks, or lone individuals, motivated by an ideology similar to that of AQ, but with no connection to that organisation; and
- terrorist groups that follow a broadly similar ideology as AQ but that have their own identity and regional agenda.

These terrorist groups claim a religious justification for their actions and have a wide-ranging religious and political agenda; they are no longer concerned with a single issue. Many seek mass civilian casualties and are prepared to use unconventional techniques (including chemical or radiological weapons); they conduct attacks without warning; they actively seek to recruit new members in the UK and elsewhere around the world (HM Government, 2009).

1.2 Research context

Over recent years, most notably since the terrorist attacks in the US on September 11, 2001, there has been an increase in the amount of published research in the field of terrorism and security, particularly in the context of AQ-influenced groups.

There are a number of difficulties and challenges in conducting empirical research in this area. Actual or would-be terrorists are difficult to identify in advance, and may not be alive after an attack. They tend to be unwilling to participate in research even if identified; may not be allowed access to researchers if they are imprisoned; and may be unable to communicate in depth with researchers who are not fluent in their language. Their families and friends may be more willing than the terrorists themselves to speak to researchers, but can often only guess at the suicide bombers' true motivations. As a result, much of the current literature provides only anecdotal evidence.[1] A further challenge is that associations with socio-demographic or psychological and

[1] Her Majesty's Inspectorate of Constabulary, Preventing Violent Extremism Learning and Development exercise, 2008.

social factors are almost invariably made without reference to control groups of people who are not involved in violent extremism (i.e. the vast majority of people who share the same background as terrorists but do not become involved in terrorism).

Despite the recent increase in research in this field the number of high-quality studies based on a substantial evidence base that directly involves terrorist participants, which can therefore offer suggestions for what causes them to become involved in violent extremism, remains sparse. The majority of studies are based on a small number of case interviews or secondary analysis of documents, such as trial transcripts, radical websites or other publications promoting violent extremism, where terrorists document their thoughts. Qualitative research involving interviews with participants is often limited to those who are more peripherally involved in terrorism than suicide bombers, such as bombers' family or friends, or other group members who have not taken that final step towards violence. There is also a large body of 'think-pieces', based largely on anecdotal evidence.

Lastly, a further challenge in this area relates to the various terms used interchangeably in research and literature to describe participation and involvement in AQ-influenced violent extremism.

1.3 Research questions

The main REA set out to address the following questions:

- What factors, social, psychological and physical, make a person more *vulnerable* to participation in AQ-influenced violent extremism?

- What factors enable vulnerable individuals to *resist* the influence of AQ-influenced violent extremism?

It was considered that there might be useful knowledge from other types of violent activity that could supplement the relatively sparse evidence base on AQ-influenced extremism. This report therefore also presents the findings from a second targeted REA that looked to answer the following questions:

- What factors make a person more vulnerable or resilient to participation in other types of violent activity, including:
  - other (non AQ-influenced) types of terrorist activity;
  - animal rights activism;
  - cults;
  - gangs;
  - right-wing extremism; and
  - youth crime.

- How far can the lessons learned from these areas apply to the study of AQ-influenced violent extremism?

Both REAs were limited to studies reporting primary research findings that were published in or after 1999, in order to focus on those studies most likely to be relevant to current political contexts.

1.4 Definitions

In these REAs the following definitions are used.

Radicalisation, in the context of the CONTEST strategy, is the process by which people come to support terrorism and violent extremism and, in some cases, then go on to participate in terrorist acts (HM Government, 2009). This review is concerned with radicalisation that leads to violence or support for violence, but not radicalisation by which individuals hold more radical views than the majority of the population, but do not support violence.

The following definitions were developed from the fields of criminology and psychology, where the concepts of vulnerability and resilience are common currency, in particular Clayton (1992); Fisher (2007).

A **risk factor** or **vulnerability factor** is defined as an attribute, characteristic, condition or context that increases the probability of support for, or involvement in, violent extremism, or an increase in the level of involvement in violent extremism.

A **protective factor** or **resilience factor** is defined as an attribute, characteristic, condition or context that reduces or buffers the effect of one or more vulnerability factors, to prevent the move toward violent extremism.

1.5 Methodology

The main REA of the existing literature was undertaken to identify what factors make an individual more vulnerable or resilient to AQ-influenced violent extremism.

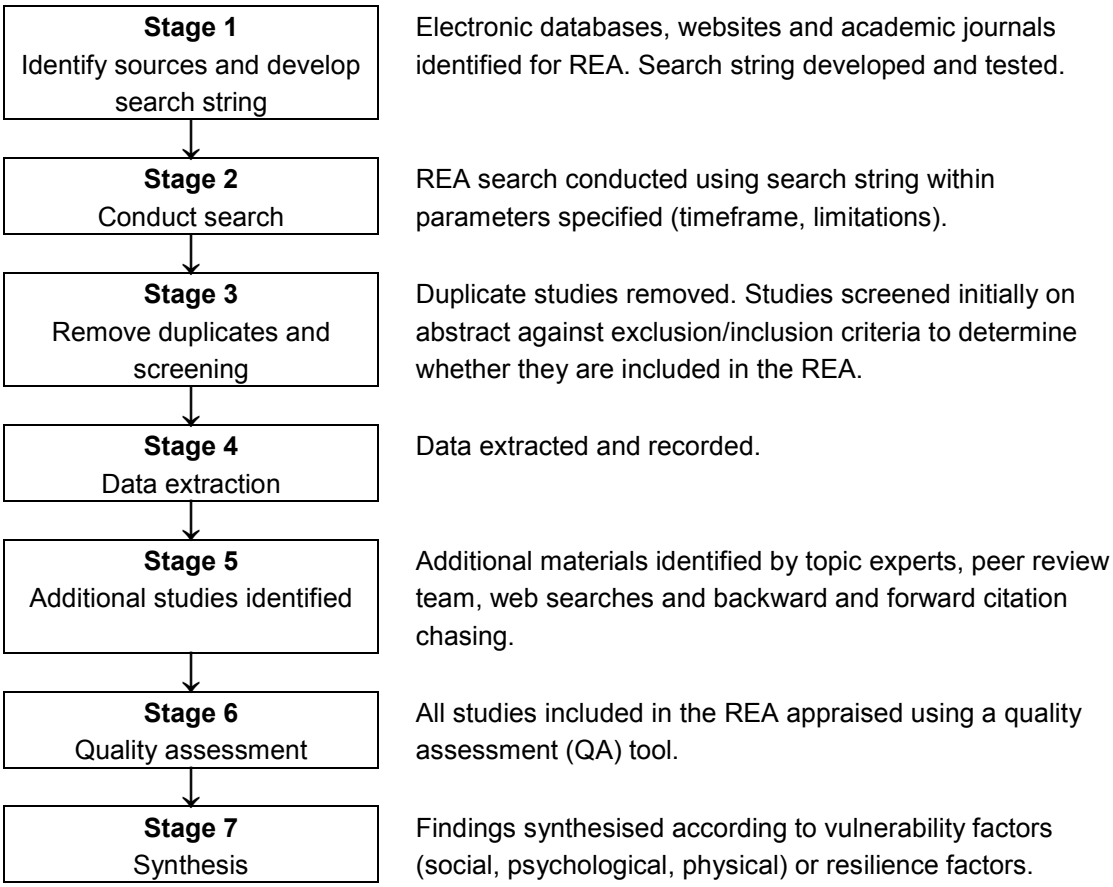
An REA provides a more thorough synthesis of the existing evidence base than a simple literature review. REAs are valuable where a robust synthesis of evidence is required, but the time or resources for a full systematic review are not available.

The other types of violent activity selected for the second REA were chosen for relevance in the following ways.

- Participation in groups associated with violence: non-Islamist terrorism; animal rights and right-wing extremism; and gangs were selected as examples of violent groups of relevance to Western cultures. Participation in religious cults was also included in the supplementary evidence, but only if the cult was involved in violent acts against its members or non-members.
- Participation in violent activity that was not necessarily associated with group membership; this was restricted to studies on violent youth crime, since this was considered to be most relevant to younger terrorists in Western countries, and enabled the review team to restrict the evidence to a manageable volume.

Studies were identified through systematic searches of relevant databases, hand searching of academic journals and websites, as well as through the recommendations from the review topic expert and peer review team and by backward and forward citation chasing. A summary of the stages involved in an REA are presented in Figure 1.

Figure 1 Summary of REA methodology



Further details of the REA methodology, including the databases that were searched, the search string used, the REA inclusion/exclusion criteria, the data extraction template and the quality assessment (QA) tool can be found in Appendix A.

1.6 Quality assurance and 'best evidence' approach

A 'best evidence' approach was used to determine what literature was included in the REAs. This approach ensures that decisions based on findings of these REAs will be based on the highest quality and most relevant research.

The quality of the research was evaluated by employing a QA tool. The tool summarises the quality of the methodology of each study based on how adequately this was reported, as well as the applicability of each study to the REA research questions. Studies with a zero relevance score and those with an overall quality score less than 50 per cent were excluded.

1.7 Data synthesis

There are methodological challenges in synthesising a diverse range of evidence that includes both qualitative and quantitative data. An integrative mixed methods approach was used to analyse the data for these REAs. This involved extracting data as text and/or numbers from each study and coding it in a data extraction database (further details provided in Appendix A) according to the type of factor being investigated, regardless of the methodology of the study. This ensured a full understanding of the factors involved, and that the most robust evidence was prioritised without skewing the review findings to those areas where data are readily available. Data extraction was conducted by a team of researchers, who also participated in the development of the synthesis framework.

The review found few relevant and robust empirical studies, and the lack of quantitative data meant synthesis using statistical analysis of the data was impossible. Data were therefore combined using a best-evidence synthesis approach, combining systematic methods in study selection with the attention to individual studies, and substantive issues of a narrative point of view with a focus on best evidence in the field.

1.8 The evidence base on Al Qa'ida-influenced violent extremism and other violent extremism

Table 1 details the number of studies identified from the REA searches and the final number of studies included in the REAs. Table 1 also details the number of studies excluded because they did not meet the inclusion criteria, were not retrievable, were of low quality or low relevance to the REAs.

Through the REA search 39 relevant studies were identified on AQ-influenced violent extremism and 51 studies were identified on other types of violent activity. The majority of studies on other types of violent activity related to youth crime (41), with only a limited number of studies on right-wing extremism (3), gangs (3), non-AQ terrorism (2), animal rights activism (1) and cults (1), meeting the inclusion criteria.

Table 1 Flow of literature through the review

	Unique studies identified from search, citation chasing and experts	Studies excluded on abstract or full text or not retrievable	Studies excluded as low relevance or low quality	Studies included in REA
Main REA: AQ-influenced violent extremism	970	912	19	39
Supplementary REA: Other types of violent activity: total	2,112	2,045	16	51[2]
Youth crime	*355*	*307*	*7*	*41*
Right-wing extremism	*993*	*987*	*3*	*4*
Gangs	*185*	*180*	*2*	*3*
Non-AQ Terrorism	*253*	*247*	*4*	*2*
Animal rights	*88*	*87*	*0*	*1*
Cults	*238*	*236*	*1*	*1*

The 39 high priority studies that looked at AQ-influenced violent extremism used the following methodologies:

- controlled trials (2 studies);
- interviews (15 studies);
- survey interview (5 studies);
- observational study (1 study); and
- secondary analysis of autobiographies or biographies, extremist pamphlets and other communications (16 studies).

Of the 39 high priority studies that looked at AQ-influenced violent extremism, 35 looked at the factors associated with a move towards AQ-influenced violent extremism and 4 studies looked at the factors that enable individuals to resist the influence of AQ-influenced violent extremism.

The 51 high priority studies that looked at other types of violent activity used the following methodologies:

- systematic reviews (3 studies);
- interviews (7 studies);
- survey interviews (20 studies); and
- secondary analysis of autobiographies or biographies, extremist pamphlets and other communications (21 studies).

Tables 6 and 7 in Appendix A list studies included in the main and supplementary REA, including quality assessment rating, country of study and study method. Tables 8 and 9 in Appendix A also list those studies excluded from the main and supplementary REA because they were of low quality or of low relevance.

[2] One study (Martin *et al.*, 2009) looks at both youth crime and right-wing extremism and is therefore included in both categories.

1.9 Characterising the literature on vulnerability and resilience to involvement with Al Qa'ida-influenced violent extremism and other types of violent activity

Quality of the evidence base on Al Qa'ida-influenced violent extremism

The main REA identified a limited amount of robust research into the factors associated with vulnerability and resilience towards AQ-influenced violent extremism (see Table 1). Very few studies identified by the search strategy met the REA inclusion criteria. As is often the case with review methods that include a quality assessment element, a substantial number of studies uncovered by the initial sweep of the databases were subsequently determined to be of low relevance or of weak methodological rigour, and were excluded from the REA

There is limited research specifically looking at 'vulnerability' to violent extremism. However, much of the pre-existing literature on radicalisation implicitly discusses those factors that might heighten vulnerability, both affecting the individual (in particular, social and psychological factors) or the wider community (in particular, physical factors such as the existence of local religious venues frequented by figures with extremist beliefs or connections).

The literature on resilience towards involvement in AQ-influenced violent extremism is even less well developed, with research focusing on why individuals become involved in violent extremism rather than why they do not. It is tempting to assume that if one factor is known to increase vulnerability to participation in violence, then the opposite of that factor will increase resilience – but this is not necessarily the case. For example, new recruits to violent extremism are often drawn to participation because their family or friends are already involved – but this does not automatically mean that people who have a very limited social network are resistant to violent acts.

Quality of the evidence base on other violent activity

The second REA also found limited evidence on the factors associated with vulnerability and resilience towards other types of violent activities (see Table 1). Again very few studies met the REA inclusion criteria and were excluded as they were irrelevant or did not report on primary data. Further studies were deemed to be of low methodological rigour by the quality assessment process and were also excluded.

The REA found more studies on factors associated with youth crime than with other types of violence, in part because of the longer history of research on this topic. The REA identified several well-designed cohort studies that followed large groups of children over time to identify those factors associated with subsequent violent crime. Yet even in this area, few high quality studies that looked beyond the association to identify actual reasons and motives for involvement in youth crime were found.

Association does not infer causation

The studies that were included in both REAs mainly reported on factors that were associated with, but not necessarily causes of, violent extremism, especially those studies that looked at the backgrounds of participants. Knowing that there is an association is not the same as being

confident that this factor has caused participation. Many other people exposed to the same factor do not participate in violence, and there is no guarantee that reversing exposure to, or the influence of, the factor will reduce participation in violent extremism.

Nonetheless, trends and patterns have been identified in the research, which suggest that a causal relationship, though scientifically untested, might exist between some factors of vulnerability and subsequent engagement in AQ-influenced violent extremism.

Generalisability of the research findings

Both REAs found limited robust research that is directly based on UK samples. It is important to note that the experiences of Muslims from one area and time may not generalise well to other locations or political climates. For example, the reasons why a young Palestinian man becomes involved in attacks against Israel cannot be assumed to be the same as the reasons why a second-generation Pakistani in England will seek to join a local AQ-influenced group.

Research that includes participants from a wide range of places in one study therefore risks aggregating many different and potentially contradictory motives and ideologies, so that no overall conclusions can be drawn. For these reasons, research evidence in this area must always be interpreted with caution, and conclusions not over-generalised. There are also concerns that the literature has a tendency to aggregate the varied experiences and motivations of Muslims from different communities, not only within countries, but internationally as well.

1.10 Report structure

Chapter 2 presents the findings on the social, psychological and physical factors that make an individual or group more vulnerable to AQ-influenced violent extremism.

Chapter 3 sets out the evidence base on the factors that enable vulnerable individuals or groups to resist the influence of AQ-influenced violent extremism.

Chapter 4 presents the findings from the second targeted REA on what factors make an individual more vulnerable or resilient to other types of violent activity. The chapter identifies the similarities and differences between groups; and the limitations to be considered from using supplementary evidence.

Chapter 5 provides a summary and conclusion of the report and draws together the key points from the literature; including knowledge gaps and further research.

Chapter 6 lists the studies included in the main REA, studies included in the second REA, other studies cited in the report and studies suggested by the peer reviewers.

Appendix A provides a description of the methods used for the REAs, Appendix B documents the flow of literature through the REAs and Appendix C provides a tabular summary of the findings from the studies included in the REAS.

2. What factors make a person or group more vulnerable to Al Qa'ida-influenced violent extremism?

This chapter presents the findings of the Rapid Evidence Assessment (REA) of existing research concerning the factors associated with the movement towards Al Qa'ida (AQ)-influenced violent extremism.

The studies included in this review either reported on the background characteristics of participants in AQ-influenced violent extremism, or identified factors that have been associated with participation in AQ-influenced extremism. The studies have been grouped under the following three categories.

- Social factors: Who becomes involved?
  - – characteristics of the participants (for example age, gender, education);
  - – social ties and changing personal priorities and circumstances.

- Psychological factors: Why do they become involved?
  - – motivations of participants to consider violence;
  - – religious and political beliefs.

- Physical and situational factors: How do they become involved?
  - – processes that lead to migration into the group;
  - – processes that increase the risk of the individual or group performing violent acts.

A summary of the studies included in this chapter, and the areas on which they report data, is given in Table 2.

Tables 11 to 22 in Appendix C contain further information on studies that are not necessarily mentioned or discussed in the main report.

Table 2 Summary of studies reporting data on the factors associated with a move towards AQ-influenced violent extremism

	Social			Psychological							Physical and situational		
First author	Age, gender and marital status	Education, employment and economic status	Past criminal or violent activity	Psychiatric or personality disorders	Islamic beliefs	Intensification of religious and extremist beliefs	Cognitive opening and the influence of physical situation	Political ideology and grievances	Discrimination, alienation or humiliation and vengeance/retribution	Material and other rewards	Social and group dynamics	Charismatic leaders and individuals	Social settings and spaces
Alonso, 2006						X					X	X	X
Alonso, 2010						X							X
Araj, 2008								X	X				
Bakker, 2006	X	X	X	X	X	X					X	X	
Beg, 2009					X				X	X			
Change Institute, 2008					X			X	X				
Fair, 2008											X		X
Groen, 2006											X		
Gupta, 2005									X	X			
Hegghammer, 2006			X		X			X					
Jacques, 2008					X			X					
Jensen, 2006								X					
Jordán, 2008	X	X									X		X
Merari, 2005	X	X		X					X				
Nesser, 2004	X							X					X
Nesser, 2010								X					
Neumann, 2007						X	X				X	X	X
Pape, 2006								X					
Pedahzur, 2003	X							X					
Pedahzur, 2006											X	X	
Post, 2003									X	X	X	X	X
Quiggin, 2010								X					
Sageman, 2004	X	X		X	X	X					X	X	X

Table 2 continued **Summary of studies reporting data on the factors associated with a move towards AQ-influenced violent extremism**

	Social			Psychological							Physical and situational		
First author	Age, gender and marital status	Education, employment and economic status	Past criminal or violent activity	Psychiatric or personality disorders	Islamic beliefs	Intensification of religious and extremist beliefs	Cognitive opening and the influence of physical situation	Political ideology and grievances	Discrimination, alienation or humiliation and vengeance/retribution	Material and other rewards	Social and group dynamics	Charismatic leaders and individuals	Social settings and spaces
Sageman, 2008						X					X	X	X
Schbley, 2003	X	X		X									
Silber, 2007								X					
Slootman, 2006					X			X					
Smith, 2004								X					
Speckhard, 2006	X	X				X			X				
Stern, 2004					X			X	X	X			
Trujillo, 2009						X							X
Weinberg, 2003	X	X			X								
Wiktorowicz, 2004						X	X						
Wiktorowicz, 2005					X	X	X		X			X	
Yom, 2004	X	X											

2.1 Social factors: Who becomes involved?

The research on the social factors behind participation in violent extremism is largely observational, and, as such, shows factors that are *associated* with participation, without being able to explain whether any of these factors *cause* violent extremism.

2.1.1 Age, gender and marital status

Individuals involved in AQ-influenced violent extremism are demographically unremarkable. Other than their Islamic faith, they have no typical characteristics, and there are no factors, features or previous experiences that set them apart from other Muslims in a consistent and predictable way (Bakker, 2006; Merari, 2005; Sageman, 2004).

Individuals who become involved in AQ-influenced violent extremism tend to be relatively young. Sageman's (2004) sample of 172 jihadists (individuals who claimed to be fighting for the establishment of a global Islamic state) found that global jihad terrorists were on average 26 years old. In Bakker's (2006) sample of 242 individuals involved in jihadi terrorist attacks in

Europe between 2001 and 2006 the average age while participating in the jihad (measured at time of arrest) was 27 years old. Palestinian suicide bombers had an average age of 22, with an age range of 16 to 53 years (Merari, 2005; Yom and Saleh, 2004), Hezbollah militants in Lebanon were aged between 13 and 27 (Schbley, 2003); and Chechen suicide terrorists were aged between 15 and 45, with an average age of 24 years (Speckhard, 2006).

Most of terrorists involved in attacks in Europe or the US were male. Bakker (2006) found from his sample that 98 per cent of individuals were male. In contrast, almost one-half (43%) of terrorists in Chechnya were female (Speckhard, 2006), and women have been increasingly involved in left-wing Kurdish and Turkish groups; violence in Palestine; and in the Tamil Tigers in Sri Lanka (Merari, 2005). Members of Sunni Islamist terrorist cells living in Europe, however, remained almost exclusively male, largely of Middle Eastern or North African origin, and second-generation immigrants, political refugees or illegal immigrants (Nesser, 2004).

In terms of marital status, individuals involved in AQ-influenced violent extremism in the West are likely to be married (Bakker, 2006; Jordán *et al.*, 2008; Nesser, 2004; Sageman, 2004). Bakker's (2006) sample of European terrorists found that where he could collect reliable data, 59 per cent were married or engaged and 37 per cent had children at the time of their arrest. In Sageman's (2004) sample, 73 per cent of individuals were married and most had children. In contrast, Palestinian suicide bombers before the Second Intifada were usually single men (Merari, 2005; Pedahzur *et al.,* 2003; Weinberg *et al.*, 2003; Yom and Saleh, 2004).

2.1.2 Education, employment and economic status

In general, the individuals who become involved in violent extremism are educated to a similar level and have similar socio-economic status to the broader population in which they live.

Sageman (2004) found that about three-quarters of the jihadi terrorists in his study were from the upper or middle classes, more than 60 per cent had at least some college education (far higher than average for the population in general) and 9 per cent had a higher degree. He found evidence of regional variation in the background of violent extremists, with members of 'core' AQ-influenced groups in Saudi Arabia and nearby countries coming from higher socio-economic groups and having higher educational attainment and occupational skills. In contrast, he found that Mahgreb Arab violent extremists living in France and North Africa tended to be from the lower socio-economic classes, with low to moderate educational attainment and few occupational skills (*ibid.*).

Bakker (2006), who compares his sample of European terrorists against Sageman's (2004), found that his sample tended to be lower or middle class – similar to Sageman's Mahgreb Arab violent extremist sample. Given the immigrant background of the individuals in his sample, Bakker indicates the socio-economic status may simply reflect the general socio-economic character of Muslim immigrant communities in Europe.

In less affluent Islamic countries, such as Lebanon and Palestine, participants in violent extremism reflect the lower socio-economic and educational attainment common to the general population (Merari, 2005; Schbley, 2003; Weinberg *et al.*, 2003). Yom and Saleh (2004) found that 38 per cent of 87 Palestinian suicide terrorists from the Second Intifada were university graduates (a higher rate than average), but 28 per cent had failed to finish high school.

AQ-influenced violent extremists who are immigrants to Western countries are also difficult to distinguish from non-violent immigrants. Jordán *et al.* (2008), analysing documents relating to 45 AQ-influenced terrorists who were responsible for bombings in Madrid, found that their backgrounds were similar to those of the average Muslim immigrant to Spain. The majority, 87 per cent, were working class and most worked part time.

Sageman (2004) found a discrepancy between employment and capability. Despite three-quarters of his sample being classed as skilled, very few were in full-time employment, and one-quarter were unemployed, leading to relative socio-economic deprivation. Bakker (2006) found in his sample of European terrorists levels of unemployment that reflect European averages.

Schbley (2003) and Speckhard (2006) also found a mismatch between educational level and employment. Schbley (2003) found that there were few economic opportunities available for a subgroup of Hezbollah militants in Lebanon, who were middle or lower middle class, well-educated and potential high achievers. Speckhard (2006) found in a group of Chechen terrorists that 88 per cent were unemployed despite 32 per cent having more than a high school education.

2.1.3 Past criminal or violent activity

Few studies were found to report on individuals' past criminality. One study that did (Bakker, 2006) found that one-quarter of individuals had a criminal record that was unrelated to terrorism.

2.1.4 Conclusion

Individuals involved in AQ-influenced violent extremism are demographically unremarkable and do not stand out as being different from other members of their communities. In the West individuals involved in AQ-influenced violent extremism tend to be male, young to middle-aged, married and possibly have children. While they often are of similar socio-economic status to the broader population in which they live, there is some evidence that suggests individuals may be working at a skill set lower than expected from their educational attainment. While the vast majority of individuals involved in AQ-influenced violent extremism in the West are men, women are increasingly becoming active in areas such as Chechnya and Palestine.

In order to learn why one individual from a community will become involved in violence, when the majority of outwardly similar people do not, it is worthwhile looking at what psychological and situational factors influence certain individuals. These are discussed in the next two sections.

2.2 Psychological factors: Why do people become involved?

Psychological factors refer to the beliefs, ideas and motivations that drive an individual to participate in or support violent extremism. These factors are usually explored with qualitative research, using interviews, focus groups, direct observation, and the study of writings by or about violent extremists. However, motivations are often reported 'after the act' rather than prior to engaging in violence. It is possible that what really motivated someone to become involved

initially is different from what they claim was their motivation once they have completed the radicalisation process.

2.2.1 Psychiatric or personality disorders

Commentators in the past have worked on the assumption that terrorists, and suicide bombers in particular, must have some form of mental illness or personality disorder in order to wilfully cause harm to themselves or others. For example, Schbley (2003) concluded, after analysing questionnaires completed by violent extremists in Lebanon, that having a defiant personality, poor impulse control or other antisocial behaviour are common features that make it easier for the terrorist to separate themselves from their secular environment.

In contrast, Sageman (2004) found no evidence from his biographical analysis that Islamist violent extremists from around the world had an increased rate of authoritarian personalities, paranoia or excessive narcissism. Bakker (2006) also found no evidence that AQ-influenced terrorists have a higher rate of mental illness than the general population. Merari (2005) found no common personality type or obvious personality disorder or mental illness among suicide terrorists, and found that the majority of Palestinian suicide bombers had no signs of clinical depression.

2.2.2 Islamic beliefs

As the common feature of AQ-influenced terrorist groups is their Islamic faith, it is not surprising that select religious beliefs are prominently expressed by violent extremists. Six studies identified the role of religion and defence of the faith as a rationale for engagement in AQ-influenced violent extremism (Beg and Bokhari, 2009; Change Institute, 2008; Hegghammer, 2006; Jacques and Taylor, 2008; Slootman and Tillie, 2006; Wiktorowicz, 2005). These studies suggest that people who follow Jihadi-Salafi or Wahabi Islam are most likely to become involved in violent extremism, and use religion as a reason, or a moral obligation, to embrace martyrdom in order to defend Allah's will. However, the margins between religious and political motivation can become blurred. Stern (2004) emphasises this point when she states that terrorists may claim to be motivated by religious principles, but in fact mainly pursue a mixture of spiritual and political goals.

Despite the central feature of Islamic faith for AQ-influenced violent extremists, the available evidence does not support the view that a deeply religious upbringing or education is a necessary precondition for involvement in violent extremist activities. Sageman (2004) found that around one-half of his sample had a religious upbringing (53 of 108) and around one-half had a secular upbringing (55 of 108). He does, however, acknowledge that his sample is skewed by the Maghreb Arab cluster, which includes individuals from Algeria, France, Morocco and Tunisia – countries that are strongly secular or stress secularism over Islam.

Sageman also found that only 23 out of the 137 people for whom he had data were educated in Islamic primary and secondary education – refuting the suggestion that such educational systems (i.e. Islamic schools/madrasahs) preach hatred of the West and make people susceptible to the Salafi message of global jihad against the West (*ibid.*).

In Bakker's (2006) sample (where information was available) more than one-third of the jihadi terrorists were (born and) raised in secular European countries. Bakker also found that two-

thirds of individuals (not including religious converts) were secular during their youth (24 compared with 11) while one-third were faithful.

A study by Weinberg *et al*., (2003) looked at who Palestinian suicide terrorists were and who the victims were. They found that the suicide bombers were more likely to have received a religious education compared with conventional terrorists (around 82 per cent and around 36 per cent respectively).

2.2.3 Intensification of religious and extremist beliefs

While a religious upbringing is not a necessary precondition for participation in AQ-influenced violent extremism, individuals were found to become more religious prior to their recruitment to or involvement in AQ-influenced violent extremism. Sageman (2004) found that in his sample there was an almost universal shift to more devout religiosity in adulthood – 99 per cent became very religious prior to the point of joining the jihad and for 97 per cent, this new faith was the Salafi version of Islam. Bakker (2006) also found that faith had increased in the months before recruitment for almost all of his sample of European terrorists. Speckhard (2006) found that as individuals' religious beliefs deepen and strengthen this may manifest itself in changes to their lifestyle and appearance, which their communities may detect.

In addition, eight studies found that a key stage of the radicalisation process was the intensification of extremist beliefs (Alonso, 2010; Alonso and Reinares, 2006; Bakker, 2006; Neumann and Rogers, 2007; Sageman, 2004; Trujillo *et al*., 2009; Wiktorowicz, 2004 and 2005).

Sageman (2004 and 2008) in describing the pathways into terrorist organisations highlights that over time the views and beliefs of group members can become progressively more radical and violent.

Neumann and Rogers (2007) describe how individual extremist beliefs can intensify through involvement and interaction with 'gateway organisations' – helping to facilitate individuals' paths into violent extremism. While these gateway organisations are not directly involved in the pursuit of violence, they convey religious and political ideas that are similar, if not identical in some cases, to those of violent extremist groups. This enhanced extremist ideological framework can then provide the justification for involvement in violence. Wiktorowicz (2005) researched the radical organisation al-Muhajiroun and found that the extremist beliefs of individuals who joined the organisation intensified over time – with individuals becoming more committed to the group's extreme ideology and willing to undertake high-risk activism.

Trujillo *et al*. (2009) looking at radicalisation in 25 Spanish prisons found that once a prisoner was recruited in a socially reclusive environment, such as a prison, it was not difficult to get the individual to adopt a political-religious Islamist ideology. Having adopted a more extreme ideology the individual becomes increasingly more radical and uses the Islamist ideology as a model for explaining the nature of their personal, family, ethnic and socio-political situation.

From the available evidence it seems necessary for the change in beliefs to occur before the individual is ready to commit their lives to an act of violent extremism.

2.2.4 Cognitive opening and the influence of physical situation

For people who have not previously expressed extremist views to become radicalised, a series of psychological processes need to happen. These have been described as 'cognitive opening' and 'frame alignment'. Cognitive opening refers to the process by which a personal crisis leads to a re-evaluation of previously held beliefs and a willingness to change an individual's attitudes and perspectives. Frame alignment refers to changing the individual's mindset to fit better with a new set of beliefs (Neumann and Rogers, 2007; Wiktorowicz, 2004 and 2005). It follows that major events such as experiencing the effects of oppression or victimisation, the death of someone close to the individual, or imprisonment for other, non-extremist crimes could provide the cognitive opening, at least in some cases. Once the individual is open to new ideas, exposure to extremist views, particularly from someone close to them socially, can more easily lead to radicalisation.

2.2.5 Political ideology and grievances

Even among AQ-influenced violent extremism, the evidence suggests that participants are likely to be driven as much by political as by religious motives, especially in the West.

A total of 12 studies identified political attitudes and perceptions as reasons for engaging in violent extremism (Araj, 2008; Change Institute, 2008; Hegghammer, 2006; Jensen, 2006; Nesser, 2004 and 2010; Pape, 2006; Pedahzur *et al.*, 2003; Quiggin, 2010; Silber and Bhatt, 2007; Slootman and Tillie, 2006; Stern, 2004). Attitudes range from general nationalism (Pedahzur *et al*., 2003) or anti-imperialism, with criticism of the foreign policy of the US and its allies, including the UK (Change Institute, 2008; Jensen, 2006; Nesser, 2004; Pape, 2006; Silber and Bhatt, 2007; Slootman and Tillie, 2006); a sense of Islam as a point of political conflict (Slootman and Tillie, 2006; Stern, 2004); to criticisms of specific policy positions or discrimination within their country of residence (Slootman and Tillie, 2006).

Examples of these particular grievances include the role of the US in conflicts in Afghanistan and Iraq, including the 'coalition of the willing' in Iraq (Nesser, 2004; Pape, 2006; Silber and Bhatt, 2007); France's relationship with Algeria (Jensen, 2006; Nesser, 2004 and 2010); Israel's actions in Palestinian territories (Araj, 2008; Jensen, 2006; Nesser, 2004 and 2010; Pape, 2006; Pedahzur *et al*., 2003; Quiggin, 2010; Silber and Bhatt, 2007; Stern, 2004); Russia's military operations in Chechnya (Jensen, 2006; Nesser, 2004 and 2010; Pape, 2006; Silber and Bhatt, 2007). Grievances that play a role to a lesser extent include regional European issues such as tightened security, more restrictive immigration legislation, and surveillance. Some participants also pointed to key politicised events, such as the invasion of Iraq (Hegghammer, 2006), the Cartoon Crisis in Denmark in 2006 (Change Institute, 2008; Hegghammer, 2006), or the headscarf debate in France (Change Institute, 2008), as examples of grievances.

Other studies suggest that political grievances are necessary, but not sufficient, to lead to terrorism, in that not all those with political grievances participate in terrorist activities (Gupta, 2005). For example, Araj (2008) notes that the increase in Palestinian suicide bombings during the Second Intifada were more closely associated with (and preceded by) an increase in harsh Israeli repression at the micro or individual level, rather than a change in the political strategy of the occupying state. It is important to make this distinction because, as the Change Institute

(2008) noted, criticism of US and Western foreign policy, in particular the invasion of Iraq, is not unique to Muslim or extremist opinion.

Nesser (2004) concluded, from a biographical study of members of Sunni Islamist terrorist cells in Europe, that their apparent motives were complex, including both social and religious/political grievances, with an underlying motive of participation in a 'global jihad'. Pape (2006), from a similar biographical analysis of literature on leaders of AQ-influenced and other terrorist groups responsible for suicide attacks internationally between 1980 and 2003, concluded that the attacks were generally directed at democratic regimes and were primarily a response to foreign military occupation.

Pedahzur *et al.* (2003) analysed a database of Palestinian terrorists from 1993 to 2002, covering 743 individuals who had participated in successful non-suicide attacks and 80 in suicide attacks. They concluded that suicidal acts were associated with individuals living in political regimes characterised as excessively regulated, with few socio-economic opportunities, who had formed strong bonds with a group promoting suicidal terrorism. 'Altruistic' suicide occurred when an individual became closely integrated into a social group that considered suicide to be a 'duty' of the group. Individual members came to believe that their suicide would help the group achieve its goals, and that their own lives had no meaning outside the group. 'Fatalistic' suicide, in contrast, was undertaken by individuals who felt excessively oppressed and with limited future prospects. In only 20 per cent of cases was the suicide attack the individual's first active involvement in terrorism.

Silber and Bhatt (2007) concluded that radicalisation of individuals in the West is not driven by direct experience of oppression, suffering, revenge or desperation as articulated by Palestinian terrorists, but occurs when the individual is looking for an identity and a political cause. They analysed reports and interviews with the police, intelligence and academic experts professionally involved in AQ-influenced terrorist attacks or thwarted attacks in Amsterdam, London, Madrid, Sydney and Toronto, and compared the findings with an analysis of US extremist attacks in New York, Oregon and Virginia. Factors leading individuals in the West to become involved were poor economic prospects; the death of a close family member or friend; social alienation, or failure to integrate into their new culture; perceived discrimination or racism; and a political response to international conflicts involving Muslims.

Analysis of emails and blogs by Momin Khawaja, convicted in Canada of involvement in a terrorist plot in the UK, shows that his early uneventful, non-violent and well-educated life in the UK began to change at the time of the Second Intifada in Palestine in 2000. His views and motives were largely political, and religion only began to become a factor in his life once he had begun the process of radicalisation and violence at the age of 21. Motivational videos from terrorists in Chechnya showed him that oppressors could be defeated at the hands of a few 'brothers' with hand weapons, and these videos became very influential in his radicalisation. A series of largely political writings focusing on perceived injustices affecting Muslims around the world played the greatest role in his radicalisation (Quiggin, 2010).

One study performed an interesting analysis of the value-sets that terrorist groups endorse. Smith (2004) performed a quantitative content analysis of the values presented in documents (in the form of manifestos) issued by groups from different parts of the world that engage in terrorism of any sort, and compared these with documents produced by groups that shared a similar ideology but did not engage in terrorist acts. Both the terrorist and control groups

described the 'enemy' negatively in terms of their morality and attitudes to justice, equality and tolerance. However, terrorist groups were more likely than control groups to describe the enemy as aggressive and powerful, and themselves as strong, with higher morality and with greater value placed on the group's cultural and religious heritage. The difference in how the groups thought about themselves predicted those that would engage in terrorism with greater accuracy than did the way in which they described the enemy. However, as the authors analysed publications of the groups rather than the beliefs of individuals within the groups, it is difficult to be sure that these values are held by most people participating in violent extremism.

Jacques and Taylor (2008), in an analysis of biographical material collected from open source material, found evidence of gender differences in relation to the influence of political ideology. Women reported significantly fewer religious or nationalist political motives for engaging in terrorism, and significantly more personal motives. Women were less likely than men to be recruited through religious or group pressure and were more likely to be proactive in seeking and engaging with violent extremists.

2.2.6 Discrimination, alienation or humiliation, and vengeance/retribution

Perceived discrimination and humiliation of Muslims in the West, as a result of direct experience of racist abuse and anti-Muslim sentiment, or because of awareness of the more general oppression of Muslims around the world, have been found to be motivating factors for violent activity. In several cases, individuals cited revenge as a motivation for engaging in AQ-influenced violence (Araj, 2008; Beg and Bokhari, 2009; Speckhard, 2006). In some cases the revenge was for a critical life event, such as the death of a family member. This is particularly the case in conflict zones such as Chechnya or Palestine, where many people have first-hand experience of death, repression and regional occupation or invasion (Araj, 2008; Post *et al.*, 2003; Speckhard, 2006). However, Merari (2005) found that personal suffering, such as having been arrested or attacked, or the death of a family member or friend, was not a strong feature of Palestinian suicide terrorists, although it could be a contributory factor in some cases.

In other cases, vengeance is performed for the deaths of fellow Muslims in a conflict zone far away from where the terrorist may live. The notion of a unified '*ummah*' (community) allows Muslims in the West, for example, to justify acting on grievances for Muslims in conflict zones (Change Institute, 2008; Gupta, 2005; Stern, 2004; Wiktorowicz, 2005).

2.2.7 Material and other rewards

Internationally, both material and non-material rewards are found to provide motivation for involvement in AQ-influenced violent extremism. Stern (2004), interviewing the leaders of jihad groups in Pakistan (particularly *Harkat-ul-Mujahideen*), identified financial rewards as a motive for participating in the organisation. These rewards included regular salaries for managers, cash bonuses for successful operations, and payments to the families of martyrs.

Non-material incentives for engagement in AQ-influenced violent extremism were also found to be important. Post *et al*. (2003), in exploring the motivations behind terrorist actions, found that radicalised individuals refer to themselves as "heroes" and that fallen members are regarded with great honour. Other non-material incentives included giving meaning to life, personal glory or honour in the community, enhanced social status or power, and promised rewards for the

individual or their community in the after-life, including salvation and paradise for martyrs and their families (Beg and Bokhari, 2009; Gupta, 2005; Post *et al.*, 2003; Stern, 2004).

2.2.8 Conclusion

Individuals may decide to engage in AQ-influenced violent extremist activity for multiple reasons. While select religious beliefs were found to underpin engagement in AQ-influenced violent extremism and martyrdom, a deeply religious upbringing or education was not found to be a necessary precondition for involvement. However, as individuals become more involved in AQ-influenced violent extremism both religious and extremist beliefs were found to intensify in individuals. A personal event or crisis can lead to an individual re-evaluating previously held beliefs and being open to new ideas – leaving them vulnerable to adopting extremist views if exposed to them, particularly from someone close to them socially. The literature supports the assumption that individuals who engage in AQ-influenced violent extremism are no more likely to suffer from mental illness or personality disorders than the general population.

Political ideology is a consistent factor in AQ-influenced violent extremism, with political and personal grievances acting as motivating factors for engaging in violent extremism. Individuals may act in vengeance for attacks or injustice acted out on themselves or people close to them. In the West, a more important driver than personal grievances may be perceived injustice, discrimination and humiliation of Muslims in the West or oppression of, and violence against, Muslims around the world. Both material (monetary) and non-material (status, power, glory, honour) rewards are found to provide motivation for involvement in violent extremism.

Simply being minded to become involved in violent extremism may not be enough. The literature on radicalisation focuses on this as a group rather than a solitary process. A new participant needs to meet others who can share ideas and ideology, as well as pass on the technical skills necessary to commit a violent act such as a suicide bombing. Factors relating to the physical aspects of such group activities are discussed in the next section.

2.3 Physical and situational factors: How do people become involved?

Physical or situational factors leading to participation in violent extremism are associated with the following themes:

- making contact with other violent extremists via social networks;
- the need, or lack of need, for central leadership; and
- the role of meeting places in facilitating and promoting radicalisation.

2.3.1 Social and group dynamics

The central role of social networks in violent extremism is very well documented. The REA identified eleven studies that found that individuals tend to join extremist organisations if they have social contacts who are also involved (Alonso and Reinares, 2006; Asal *et al.*, 2008; Bakker, 2006; Fair, 2008; Groen and Kranenberg, 2006; Jordán *et al.*, 2008; Neumann and Rogers, 2007; Pedahzur and Perliger, 2006; Post *et al.*, 2003; Sageman, 2004 and 2008). These contacts may be made through informal social networks as well as from formal or institutional affiliations.

Sageman (2008) found that about two-thirds of the people in his sample were friends with other people who joined together or already had some connection to terrorism. Around one-fifth of Sageman's sample were close relatives – sons, brothers, first cousins – of people already in the global Islamist terrorism social movement. Many individuals volunteered to join rather than being recruited, but were then 'mobilised' by the network. Bakker (2006) found that 35 per cent of his European sample of terrorists had friends or family involved in the jihadi network at the time that they joined themselves.

Sageman (2004 and 2008) describes two major pathways into terrorist organisations. The first pathway involves a group forming casually among acquaintances. Through group dynamics and strong interpersonal bonds the views of members can become progressively more radical and violent and the group can then collectively decide to join a terrorist organisation. Sageman (2004 and 2008) refers to this as the "bunch of guys" phenomenon. The second pathway is where an individual comes into contact with a terrorist group through a childhood friend who is member of group. The individual is very likely to be socialised into the terrorist group, especially if they are living in a foreign country. Sageman (2004) found that 70 per cent of the individuals studied had joined the jihad when living in a foreign country, and a further 8 per cent were second generation immigrants in France, the UK or the US. Sageman speculated that the loneliness and social isolation caused by being in what feels like a strange land may encourage people to join groups, and religious groups are often an easy way to meet like-minded others (*ibid.*).

Suicide bombers in Spain were also found to have been recruited via social links with radical leaders within a closed community of activists (Alonso and Reinares, 2006). However, alienation from the mainstream society was found to be less of an issue for female Muslim violent extremists in the Hosted network in the Netherlands, who were found to be better integrated into Dutch society than were Muslim men (Groen and Kranenberg, 2006).

The recruiting of family members and friends has been particularly well-documented in Palestine (Asal *et al*., 2008; Fair, 2008; Pedahzur and Perliger, 2006; Post *et al*., 2003). Fair (2008), studying militants in Pakistan, found that 42 per cent of individuals were recruited through friends and family compared with 44 per cent through mosques or other religious gatherings, and 26 per cent through schools or madrasahs. Post *et al.* (2003) interviewed 35 Middle Eastern terrorists and also found that family ties within terrorist organisations were significant and important as a cause for joining – with many examples of younger brothers following their elder brother into organisations. Research has found that the social networks of terrorist groups involving family and friends have been relatively large, with 36 to 49 members (Pedahzur and Perliger, 2006).

Friends and social contacts are not only influential in making the initial introductions to an extremist group, but may also directly facilitate the recruitment and radicalisation of an individual. Would-be violent extremists are more likely to join terrorist networks if others they know are also joining (Neumann and Rogers, 2007). Once an individual has joined such a group, further contact with its members can lead to progressive deepening of radicalisation and development of more extremist beliefs by all members of the group.

Post *et al.* (2003) found that families tended to be supportive of the decision to join an active group. Families that experienced poverty and unemployment were found to be more supportive of the decision to join an active group compared with more affluent families (Asal *et al.,* 2008).

The central role of social networks in extremist groups from around the world suggests that the radicalisation process depends at least as much on who the individual knows as on their personal characteristics.

2.3.2 Charismatic leaders and individuals

Charismatic leaders and individuals may, in some cases, play a central role in radicalising and recruiting individuals to AQ-influenced terrorist groups and may be important in facilitating group dynamics (Alonso and Reinares, 2006; Neumann and Rogers, 2007; Pedahzur and Perliger, 2006; Post *et al.*, 2003; Wiktorowicz, 2005).

Wiktorowicz (2005) found that the credibility and authority of the leader (in this case Omar Bakri, leader of al-Muhajiroun) of a group is key in convincing individuals to join groups and become activists. Wiktorowicz found that Bakri's ability to "accurately" interpret Islam was particularly important, as were his personal and social qualities.

Neumann and Rogers (2007) highlight the importance of radical imams and activists in the process of recruitment into terrorist groups. They indicate that radical imams act as "chief propagandists", making the basic narrative of Islamist militancy relevant to potential recruits. Radical imams also act as "recruitment magnets" and can provide links to the Islamist militant movement through the various connections they have with groups and networks. Neumann and Rogers describe activists as the "engine" of Islamist militant recruitment – the members of a terrorist cell that "make things happen". They are responsible for establishing the cell, maintaining it, expanding it and for developing "links to the jihad". Neumann and Rogers propose the role of activists is likely to increase given the diminishing influence of radical imams. Post *et al*. (2003) also highlight the importance and influence of charismatic individuals, especially religious clerics, who hold great authority in their respective communities and whose opinion or view of history and doctrine is taken by many without question.

However, other research also highlights the potential for terrorist groups to develop with no clear leader or central figure. Sageman (2004) found no evidence of a formal top-down recruitment of individuals to terrorist groups; with like-minded individuals forming groups that go on to become more extreme in their views. Groups formed in this way tend to operate independently rather than taking orders from a central command centre (Bakker, 2006; Pedahzur and Perliger, 2006; Sageman, 2004 and 2008). This structure is seen in formal paramilitary groups that operate more or less openly, as in Pakistan or Palestine, and even more so in clandestine groups operating in countries such as the UK (Sageman, 2008).

2.3.3 Social settings and spaces

Violent extremist groups need places to meet and to recruit new members. Such meeting places can play various roles in the radicalisation process:

- they can be merely a safe place to meet;
- they can be gathering places for vulnerable individuals, who are likely to be in a state of crisis; and
- they can be sites of active recruitment, where radical ideas are disseminated.

Mosques and other religious institutions are the most frequently mentioned locations for recruitment and radicalisation to AQ-influenced violent extremism (Alonso, 2010; Alonso and Reinares, 2006; Fair, 2008; Jordán *et al*., 2008; Post *et al*., 2003; Sageman, 2004 and 2008). Mosques can simply be a publicly visible and accessible meeting place where Muslims can socialise and form religious identities (Sageman, 2004), or a safe place for violent extremists to hold meetings, such as was the case with the M-30 mosque in Madrid (Neumann and Rogers, 2007). In other cases, they can provide a base for preachers of violent extremism, such as was the case with the Finsbury Park mosque in London (Neumann and Rogers, 2007). Recent evidence (*ibid.*) suggests that extensive surveillance and policing in recent years has resulted in the role of the mosque shifting to an arena for "talent spotting" and an initial point of first contact, with the actual pursuit of radicalisation largely driven underground and away from the mosque.

Prisons also feature prominently in the studies included in the REA as important locations for radicalisation (Alonso, 2010; Jordán *et al*., 2008; Neumann and Rogers, 2007; Post *et al*., 2003; Trujillo *et al*., 2009). Prisoners are often vulnerable people who are susceptible to various influences and are looking for meaning in their lives. There are high rates of conversion to Islam in Western prisons, far outnumbering conversions to other religions. Convicted violent extremists, who may be charismatic leaders, can exert great influence over new and vulnerable prisoners, leading to their radicalisation and recruitment to violent extremism once they are released. This process works in particular through the intensification of beliefs and the development of group solidarity in a hostile environment (Neumann and Rogers, 2007).

Apart from mosques and prisons, other locations associated with recruitment, largely as simple meeting places, include educational institutions (Fair, 2008; Neumann and Rogers, 2007; Post *et al*., 2003); other public places where people typically congregate such as hairdressers, Internet cafes or bookshops (Alonso and Reinares, 2006; Neumann and Rogers, 2007); and refugee or welfare centres (Neumann and Rogers, 2007).

One type of location that is strongly associated with radicalisation is the AQ training camp. Sageman (2004) indicates that attendance at AQ training camps builds confidence and cements identity. Nesser (2004) found that all of the key operatives of groups based in Europe had spent time in AQ training camps in Afghanistan. However, Jordán *et al.* (2008), analysing documents relating to 45 AQ-influenced terrorists who were responsible for bombings in Madrid, found that none had visited training camps outside the country. Neumann and Rogers (2007) highlight that the role of training camps, which were found to play an important role in the process of Islamist militant group formation across Europe, is to strengthen group identity and social interpersonal bonds rather than the development or acquisition of skills that might be used in fighting jihad.

The REA found little in the way of systematic analysis of the role of the Internet in enabling individuals to become involved in violent extremism. One study that does address the issue is Neumann and Rogers (2007), who believe that the phenomenon of Internet-supported recruitment will grow in significance. They indicate that there are three main functions of Internet-supported recruitment. First, the Internet illustrates and reinforces the ideological messages that individuals being recruited to violent extremist groups receive. Second, it allows individuals or groups to network and communicate with other like-minded individuals or groups. It enables "seekers" with no prior involvement to find access to the violent extremist movement and enables self-starter cells to find "links to the Jihad". Lastly, the Internet can form an

environment that can lead to hyper-radicalisation, a process by which the most extreme ideas and solutions receive encouragement and support from other activists (*ibid.*).

While the Internet can play a key role in supporting radicalisation and recruitment, Sageman (2004) argues that there is no evidence that the Internet is persuasive enough by itself. Neumann and Rogers (2007) argue that the idea of the Internet as nothing more than a support mechanism for small group recruitment is no longer fully valid. While none of the individuals Neumann and Rogers interviewed were radicalised or recruited solely on the Internet, using two case studies of virtual recruitment and radicalisation (Younis Tsouli and Irfan Raja) they suggest that the Internet can be the dominant, if not the sole, factor facilitating radicalisation and recruitment. They conclude that "virtual self-recruitment" can no longer simply be ignored because it contravenes long-held, expert assumptions about direct human contact and group dynamics.

2.3.4 Conclusion

Radicalisation to violent extremism remains overwhelmingly a social process within the UK. Family and friends not only provide links to extremist groups, but they can also support and reinforce an individual's decision to join an extremist group. Through group dynamics and strong interpersonal bonds individual and group views can also become progressively more extreme and violent. Charismatic leaders and individuals can also play a central role in radicalising and recruiting individuals to AQ-influenced violent extremism. They provide a persuasive narrative and justification to potential recruits and can also facilitate individuals joining AQ-influenced violent extremist groups or networks through their various connections.

Social settings and spaces, especially mosques and prisons, play a key role in individuals becoming involved in AQ-influenced violent extremism. They are important as they provide safe environments where violent extremist groups can meet, relationships and bonds can be strengthened, extremist ideologies can be preached and reinforced, and recruitment of potential group members can take place. Increasing surveillance and policing of public spaces in recent years has resulted in the actual process of radicalisation and recruitment being largely driven underground to private spaces.

While radicalisation is a social process, the Internet can play an important role in supporting radicalisation and recruitment to terrorist groups and there have been recent cases where individuals have self-radicalised using the Internet.

3. What factors enable vulnerable individuals, groups and communities to resist the influence of Al Qa'ida-influenced violent extremism?

The second question explored in this report focused on resilience by identifying reasons why an otherwise at-risk individual is more likely to resist the influence of Al Qa'ida (AQ)-influenced violent extremism.

Most of the literature identified addressed the question of who becomes involved in violent extremism and why, rather than why people choose *not* to participate in violent activity.

There are several possible reasons why the evidence base for this question should be so sparse. As there is no clear terrorist personality or background, it can be difficult to identify non-violent people of similar backgrounds to study the reasons why they are not involved in terrorism.

Trials aimed at identifying the effects of an intervention that prevents events can be harder to do than trials looking for positive effects, if not least because they tend to need more participants and are therefore more expensive and of longer duration. Studying the non-violent majority may be more mundane, and therefore less appealing to researchers, than investigating terrorists.

Only four studies were identified that explored why individuals are resilient to the influence of AQ-influenced violent extremism. Two of these studies were conducted in Pakistan (Amjad, 2009; Asal *et al.*, 2008), one in both the US and Lebanon (Schbley, 2000) and one in Chechnya (Lyall, 2009).

A randomised controlled trial conducted by Amjad (2009) of 92 male and female psychology postgraduate students in Pakistan, found that those who were randomised to attend an educational intervention, consisting of a lecture explaining Jewish victimisation and Jewish-Muslim relations, were statistically significantly less likely to agree to join an extremist anti-Semitic group over the following three days than were the control group who attended a lecture on cognitive-behavioural therapy. People in the control group were five times more likely to request information and 16 times more likely to join the group than the intervention participants, and were statistically significantly more likely to express approval of violence to Jews ($p<0.001$). Overall, 33 per cent of males and 43 per cent of females refused to join the group. Since a previous questionnaire study had established that students who strongly approved of anti-Jewish behaviour were more likely to join, or to request more information on, extremist groups that share such beliefs, the author suggests that the educational intervention could decrease vulnerability towards violent extremism.

The other study from Pakistan (Asal, 2008) suggests that households that are more financially stable or affluent are less likely to give consent to their child's involvement in violent extremist activity and more likely actively to refuse consent. It is not clearly established however, whether these findings affect decisions of participation, disengagement or resistance of the young person to joining violent extremist groups.

Schbley (2000) conducted a ten-year pre-post survey study among Lebanese Shi'a Hezbollah militants in the US and Lebanon (which served as a control group), with the goal of assessing the impact of personal wealth and tangible assets on religious commitment and affinity for martyrdom. The author found no statistically significant changes in religious involvement measures, suggesting that increased wealth did not hinder religious commitment. However, statistically significant differences were found between pre- and post- measures of affinity to martyrdom ($p<0.0001$), suggesting that an increase in the level of personal wealth has an important negative impact on the willingness to become a martyr. Another significant finding was that participants' increased wealth either reinforced previous positive perceptions of the West or changed negative perceptions of the West to positive.

A study by Lyall (2009) investigated whether indiscriminate violence incites insurgent attacks in Chechnya through a 'treatment' and 'control' study. The author used 73 populated settlements in Chechnya where Russian forces had performed artillery strikes between 2000 and 2005 as the treatment group, and 74 matched settlements that were not bombed as the control group. The shelled and not-shelled villages were compared by establishing the mean difference in insurgent attacks by Chechens against civilians in the village thought to be Russian sympathisers for 90 days before and 90 days after a Russian strike. The villages that experienced shell bombings recorded a 29 per cent reduction in insurgent attacks, from a mean of 2.11 before, to only 1.50 after the bombing attack. Control villages, however, only witnessed a 5 per cent reduction in the mean rate of insurgency, from 2.15 in the 90-day period before the bombing of the matched village, to 2.05 attacks after the bombing. The author concluded that being a victim of, or witness to, indiscriminate violence either has no effect on willingness to participate in violence, or actually reduces the risk.

Of course, this finding does not suggest that violence is a constructive strategy to help groups resist radicalisation. Indeed, it supports the idea that the opposite of a factor known to increase radicalisation in one context does not automatically lead to a reduction in radicalisation. Military strategies, such as Russian shelling, have been found to be the basis of many grievances of terrorists that were motivating factors in their involvement in violence, yet villages that had avoided such attacks did not show lower levels of insurgent attacks in this study (Lyall, 2009).

3.1 Conclusion

The question about what stops individuals from participating in violent extremism is particularly poorly researched, especially relating to people in Western societies. From the little research that was identified, being well-educated and aware about other ethnic or religious groups and being financially stable were found to increase resilience to participating in AQ-influenced violent extremism.

A study from Pakistan (Amjad, 2009) suggests that a simple educational intervention can positively affect attitudes condoning violence against 'enemy' groups, although the outcomes were measured in the short term (three days after the intervention) and therefore their sustainability remains uncertain.

Research by Schbley (2000) found that individuals who had greater personal wealth were less likely to be willing to become a martyr and Asal (2008) found parents that were financially stable or affluent were less likely to consent to their child's involvement in violent extremist activity. Given that some individuals involved in AQ-influenced violent extremism are socio-

economically deprived and a motive for participation for some individuals in the Middle East are the financial incentives on offer, financial stability appears to increase resilience to becoming involved in AQ-influenced violent extremism.

Lastly, research suggests that, at least on a community level, experiencing violence does not necessarily lead to violent retaliation (Lyall, 2009).

4. What factors make a person more vulnerable or resilient to other types of violent activity?

A second Rapid Evidence Assessment (REA) was undertaken to identify whether there might be relevant information from the more established evidence base on why individuals become involved in other types of violent activity. This second REA drew on literature on other types of terrorist activity; animal rights activism; right-wing extremism; cults; gangs; and youth crime.

There are similarities between Al Qa'ida (AQ)-influenced violent extremism and the other types of violent activity looked at. For example, radical political activism such as right-wing extremism has, like AQ-influenced violent extremism, been found to be driven by a sense of shared values between individuals and the groups they choose to join, by a desire to rectify perceived social injustice, and by the personal and social benefits of participating in political activities (Clary and Snyder, 1999; Granik, 2005; Rosenstone and Hansen, 1993).

There are also differences between AQ-influenced violent extremism and the other types of violent activity looked at. Cults, for example, tend to isolate themselves from society, and so they have few members, but in general do not have to hide their existence even if they prefer not to advertise it. AQ-influenced violent extremism, in contrast, stresses its relevance to all Muslims, yet groups have to operate in secret, since promoting or carrying out violent acts is highly illegal (Khosrokhavar, 2005).

Table 3 summarises the similarities and differences between AQ-influenced violent extremist groups and gangs, religious cults, youth crime and other violent extremism.

Table 3 Factors associated with violent activity

	Loosely affiliated networks	Individuals working alone	Use of violence as a norm	Motivated by a 'higher cause'
Al Qa'ida influenced violent extremism and other terrorist activity	Yes	Rarely	Yes	Yes
Extreme right-wing activism/Animal rights activism	Yes	No	Yes	Yes
Gangs	Yes	No	Yes	No
Violent youth crime	Yes	Yes	Yes	No
Religious cults	No	No	No	Yes

Other terrorist activity. Although AQ-influenced terrorism is relatively new, there are plenty of other terrorist movements that can be studied, which might be expected to have at least some factors in common. As it is challenging to explore the motivation of individuals who become involved with AQ-influenced suicide bombing once they have successfully committed suicide, there is potentially useful corroborative information to be learned from studying other terrorists who have survived their experiences.

Extreme right-wing and animal rights activism. These groups also exhibit strong, shared beliefs and ideologies that may set them apart from the general population and these beliefs can lead to a justification of violence against the perceived enemy. The actions of these groups

may help reflect the point at which a strong ideological conviction can become a willingness to commit acts of violence.

Gangs. Like religious cults and other isolationist groups, the recruitment of young people into group- or gang-related activities is strongly linked to social bonds. Gang allegiances often form on the basis of a common background or residence, but are rarely driven by any sort of ideology or political belief, and perceived grievances are likely to focus on other gangs, rather than the wider society.

Youth crime. Terrorists may fund their activities by crime, and learning more about the reasons for young people becoming involved in crime from its much more abundant evidence base may possibly reveal strategies that could decrease not only participation in crime, but also, subsequently, in terrorist acts. The second REA focused on a study of factors associated with participation in youth crime rather than crime in general, as a way of limiting the evidence base to a manageable volume that will most inform the main REA questions.

Religious cults. As with AQ-influenced violent extremism, a number of cults are motivated by religious beliefs that have taken on a political motive. Religious cults rarely turn to violence, and, when they do, it tends to be towards themselves rather than others (Lalich, 2004). However, a few high profile cases, such as the Waco siege in 1993 in the US, have led to the study of how followers are recruited into the cult and come to adopt its beliefs. This process of radicalisation, and the rare episodes of group suicide or attacks on the wider community in the name of religion, might be expected to provide some insight into the process of AQ-influenced extremist radicalisation. However, the scarcity of violent cults reduces the likely evidence base for this question.

4.1 Supplementary evidence findings

The literature identified in the second REA identified similar themes to the studies on AQ-influenced terrorism, and are summarised under the same categories: social, psychological, and physical and situational.

Most of the studies were carried out in North America (27) and Europe (14), and as such relate more to motivations in these Western cultures, rather than the Arab, North African and South East Asian settings that were common for research into AQ-influenced terrorism. A summary of the studies included in this chapter, and the areas on which they report data, is given in Table 4.

Tables 11 to 22 in Appendix C contain further information on studies that are not necessarily mentioned or discussed in the main report.

Table 4 Summary of studies reporting data on the factors associated with a move towards other types of violent extremism

		Social			Psychological				Physical and situational
First author	Group*	Education, employment and economic status	Family background	Past criminal or violent activity	Psychiatric or personality disorders	Intensification of religious and extremist beliefs	Grievances, vengeance and exposure to violence	Material and other rewards	Social and group dynamics / Social settings and spaces
Gaarder, 2008	AR								X
Lalich, 2004	CU					X			
Griffin, 2006	GA				X				
Hill, 1999	GA	X	X		X				
Vowell, 2000	GA	X							
Bjørgo, 2009	RW						X		X
Blazak, 2001	RW								X
Blee, 2003	RW	X				X	X		X
Martín, 2009	RW/YC	X					X	X	
Borum, 2004	TG						X		
Smith, 2001	TG	X							
Banyard, 2006	YC	X	X		X				
Baskin-Sommers, 2006	YC			X	X				
Becker, 2004	YC		X	X					
Beyers, 2001	YC	X	X	X	X				
Blum, 2003	YC						X		
Brezina, 2008	YC							X	
Case, 2007	YC		X	X	X				
Christoffersen, 2003	YC	X	X						
De Coster, 2006	YC	X		X					
Desmond, 2009	YC	X		X					
Edens, 2006	YC				X				
Elonheimo, 2007	YC				X				
Fergusson, 2000	YC				X				
Fergusson, 2002	YC								X
Fittkau, 2008	YC			X	X				
Greco, 2009	YC		X						
Hawkins, 2000	YC			X	X				
Herrera, 2001	YC						X		
Herrera, 2003	YC						X		

Table 4 continued **Summary of studies reporting data on the factors associated with a move towards other types of violent extremism**

		Social			Psychological				Physical and situational
First author	Group*	Education, employment and economic status	Family background	Past criminal or violent activity	Psychiatric or personality disorders	Intensification of religious and extremist beliefs	Grievances, vengeance and exposure to violence	Material and other rewards	Social and group dynamics / Social settings and spaces
Hoeve, 2008	YC		X	X					
Hosser, 2007	YC			X	X				
Johnson, 2008	YC	X							
Kjelsberg, 2002	YC		X	X	X				
Kuhns, 2005	YC		X	X	X				
Lansford, 2007	YC						X		
Lennings, 2003	YC				X				
Lim, 2007	YC							X	
Lindberg, 2009	YC	X	X		X				
Mclaughlin, 2000	YC				X				
Moffitt, 2002	YC			X	X				
Morash, 2007	YC						X		
Nieuwbeerta, 2006	YC		X	X	X				
Nofziger, 2001	YC	X			X				
Piquero, 2005	YC				X				
Sauvola, 2002	YC		X						
Sourander, 2006	YC		X	X	X				
Thurnherr, 2008	YC		X	X					
Vaughn, 2008	YC			X	X				
Wadsworth, 2006	YC	X							
Zagar, 2009	YC			X					

* AR=animal rights; CU=cults; GA=gangs; RW=right wing; TG=terrorism (general); YC=youth crime

4.2 Social factors: Who becomes involved?

Just as there is no consistent background for AQ-influenced violent extremists, there is no common type of participant in other forms of violent behaviour. As with the main question, knowing that a factor is associated with participation in violent behaviour is not the same as being confident that this factor has *caused* the participation.

4.2.1 Education, employment and economic status

Individuals involved in AQ-influenced violent extremism tend to be educated to a similar level and have similar socio-economic status as the broader population in which they live. The literature on left-wing terrorist groups in the US showed those involved were also well-educated, with 47 per cent found to be college graduates (Smith and Damphousse, 2001). Research on the educational attainment of individuals involved in right-wing extremism was contradictory, with one study (Blee, 2003) finding an association between involvement and poor educational attainment and one study (Martín *et al*., 2009) not finding an association.

In contrast, lower educational attainment, either by the participants or their parents, has been associated with membership of gangs (Hill *et al*., 1999) and violent youth crime (Banyard *et al*., 2006; Beyers *et al*., 2001; Christoffersen *et al*., 2003; De Coster *et al*., 2006; Desmond and Kubrin, 2009; Johnson *et al*., 2008; Lindberg *et al*., 2009; Martín *et al*., 2009).

It has been suggested that frustration with having few professional or economic opportunities to succeed in life may make AQ-influenced violent extremism more likely (Schbley, 2003). A perceived block in their ability to reach their socio-economic or educational potential has also been identified as a factor leading European-American and African-American males, but not females, to participate in gangs and other violence in the US (Vowell and May, 2007). Research in the US has found that reduced socio-economic status has been associated with violent youth crime (Nofziger, 2001). Research by Wadsworth (2006) found that young people aged 14 to 21 in the US were less likely to commit violent crime if they had a rewarding job or received benefits compared to young people who did not have a rewarding job or were not receiving benefits.

4.2.2 Family background

Close family links were often used to recruit individuals to AQ-influenced violent extremist groups, but the families themselves were not reported to be fragmented. In contrast, dysfunctional or disrupted families were commonly reported in the literature on gangs and youth crime. One study found that gang members were more likely than non-members to come from single parent families (Hill *et al*., 1999), and 14 studies found an association between youth crime and one parent being absent, uninvolved or harsh in caring for the child, or having a drug or alcohol problem (Banyard *et al*., 2006; Becker *et al*., 2004; Beyers *et al*., 2001; Case and Haines, 2007; Christoffersen *et al*., 2003; Greco and Grattagliano, 2009; Hoeve *et al*., 2008; Kjelsberg, 2002; Kuhns, 2005; Lindberg *et al*., 2009; Nieuwbeerta and van der Laan, 2006; Sauvola *et al*., 2002; Sourander *et al*., 2006; Thurnherr *et al*., 2008). For example, Nieuwbeerta and van der Laan (2006), in a secondary analysis of documents related to 105 juvenile offenders in the Netherlands, found that 90 per cent were male, 50 per cent had divorced parents, 32 per cent had no contact with their father or had been neglected by one or both parents, and 29 per cent had been the subject of previous child protection measures.

4.2.3 Past criminal or violent activity

Few AQ-influenced terrorists were found to have had prior convictions (Bakker, 2006; Hegghammer, 2006). In contrast, perpetrators of youth crime all too often had a history of violent or criminal behaviour, or having been in trouble at school (Baskin-Sommers and Sommers, 2006; Becker *et al*., 2004; Beyers *et al*., 2001; Case and Haines, 2007; Desmond and Kubrin, 2009; De Coster *et al*., 2006; Fittkau and Graser, 2008; Hawkins *et al*., 2000; Hoeve *et al*., 2008; Hosser *et al*., 2007; Kjelsberg, 2002; Kuhns, 2005; Moffitt *et al*., 2002; Nieuwbeerta and van der Laan, 2006; Sourander *et al*., 2006; Thurnherr *et al*., 2008; Vaughn *et al*., 2008; Zagar *et al*., 2009).

4.3 Psychological factors: Why do people become involved?

4.3.1 Psychiatric or personality disorders

AQ-influenced violent extremists do not appear to have higher rates of mental illness or personality disorders than in the general population (Bakker, 2006). In contrast, there is some evidence from ten studies that participants in gangs or youth crime are more likely to have psychiatric or personality disorders, including hyperactivity (Hawkins *et al*., 2000; Hill *et al*., 1999; Sourander *et al*., 2006); anxiety (Banyard *et al*., 2006); depression (Elonheimo *et al*., 2007); and conduct disorder, psychopathology or other forms of antisocial personality disorders (Beyers *et al*., 2001; Edens *et al*., 2006; Fittkau and Graser, 2008; Lindberg *et al*., 2009; Moffitt *et al*., 2002; Sourander *et al*., 2006).

Seven studies found an association between gang membership or youth crime and low self-control or risk-taking behaviour (Case and Haines, 2007; Hawkins *et al.*, 2000; Hill *et al*., 1999; Kjelsberg, 2002; Nieuwbeerta and van der Laan, 2006; Nofziger, 2001; Piquero *et al*., 2005). Problem alcohol and drug use was associated with gang membership (Griffin and Hepburn, 2006; Hill *et al*., 1999) and youth crime (Banyard *et al*., 2006; Baskin-Sommers and Sommers, 2006; Case and Haines, 2007; Fergusson and Horwood, 2000; Hawkins *et al*., 2000; Hosser *et al.*, 2007; Kjelsberg, 2002; Kuhns, 2005; Lennings *et al.*, 2003; Mclaughlin *et al.*, 2000; Vaughn *et al*., 2008).

4.3.2 Intensification of religious or extremist beliefs

The literature on individuals becoming involved in AQ-influenced violent extremist groups found that individuals' religious and extremist beliefs intensified as part of the radicalisation process. Intensification of beliefs was also seen as part of the process of engagement in right-wing extremism (Blee, 2003) and cults (Lalich, 2004).

Lalich (2004), a former member of a feminist Marxist-Leninist, non-violent cult in the US, interviewed former members of the Heaven's Gate cult in the US, who committed mass suicide. She concluded that there were four structural dimensions that made up the social dynamics of cults, which reflect some of the factors shown to be relevant to AQ-influenced violent extremism:

- charismatic authority – the emotional bond between the leader and follower, which was reinforced repeatedly over time;

- transcendent belief system – an overarching ideology shared by all members of the group;
- systems of control – rules, regulations and procedures that control the group's behaviour; and
- systems of influence – human interactions that controlled the social relations within the group.

4.3.3 Grievances, vengeance and exposure to violence

AQ-influenced violent extremists often express perceived grievances and a need for vengeance as motives for violence (Araj, 2008; Beg and Bokhari, 2009; Post, 2005; Speckhard, 2006). Provocation or aggression was frequently stated in interviews to be reasons for violence, and was often linked to a particular event and situation by right-wing violent extremists (Martín *et al*., 2009; Bjørgo, 2009; Blee, 2003), and was reported to be relevant in studies identified by a systematic review of the literature on the psychology of (non-AQ) terrorists (Borum, 2004).

Having been a victim of violence was associated with an increased risk of subsequent involvement in violence for adolescents in the US (Blum *et al.*, 2003), and high school students in South Korea (Morash and Moon, 2007). Research by Herrera (2001) found that witnessing marital violence was an independent predictor of subsequently being referred to court for violent offences in both boys and girls in the US. Further research by Herrera (2003) also found that adolescent girls in the US that had been exposed to physical and sexual abuse were more at risk of delinquency. In a longitudinal study in the US Lansford (2007) also found that adolescents who were abused as a young child were significantly more likely to have a court record for violent offences.

4.3.4 Material and other rewards

Both material and non-material rewards were found to provide motivation for involvement in AQ-influenced violent extremism. Lim and Chang (2007), in a survey of 149 male adolescents imprisoned for violent crimes in Singapore, found that close identification with a gang that valued violence gave self esteem to the individual, and that violence had to be maintained for status within the group to continue. Members of right-wing extremist groups also reported that being renowned for violent behaviour was an important part of their identity (Martín *et al*., 2009). Brezina (2008) found that violent behaviour among high school students in the US is driven, at least in part, by a need for autonomy, even after adjusting for prior violent behaviour.

4.4 Physical and situational factors: How do people become involved?

4.4.1 Social and group dynamics and social settings and spaces

For AQ-influenced violent extremists, social networks were central to their recruitment and continuing involvement with terrorist groups. The most common route into organised right-wing racism is also through contact with a racist group member (Blee, 2003; Blazak, 2001). For right-wing extremists, opportunities for contact with a racist group member depend in part on the social location. Types of settings where recruitment can occur and members meet include gatherings with family members who are also racists, gun clubs, survivalist networks, some hard-core music scenes, schools and prisons (Blee, 2003; Blazak, 2001).

Fergusson (2002) found clear and consistent trends for increasing affiliations with deviant peers to be associated with increasing rates of violent crime in youth in New Zealand.

Increasing involvement with an extremist group, and the need to keep such involvement secret, can lead to alienation from mainstream society. This is reported to be a motivating factor and a part of the process of becoming engaged in violent activity by animal rights activists (Gaarder, 2008), and right-wing extremists (Bjørgo, 2009).

4.5 Resilience

As with AQ-influenced terrorism, there is a dearth of evidence on the factors that prevent high-risk individuals from participating in violence. One exception is a study by Blum *et al.* (2003), which found that parents and schools having high expectations of adolescents' academic attainment reduced the risk of their involvement with violence.

4.6 Conclusions: Generalisability of findings from supplementary evidence to Al Qa'ida-influenced violent extremism

The lack of evidence for a common background or set of motives that lead a particular type of person to become involved in AQ-influenced violent extremism is mirrored in the finding that there is no common type of participant in other forms of violent behaviour. As such, it is difficult to conclude that what drove one person to join an extremist or violent group is likely to have influenced another individual to join an AQ-influenced group.

Although background factors tended to differ across groups participating in other forms of violent activity there are a number of key similarities shared between AQ-influenced terrorism and participation in other violent activities.

The first key similarity relates to the importance of social networks and the social nature of participation. Like AQ-influenced violent extremism, individuals in the studies identified tend to get involved in violent extremism because the people they were socially close to were already involved, and, once involved, the group tends to carry them further down the path to violence. In addition, safe spaces and places were also important for enabling groups to meet, build and develop close social connections and develop the ideology or beliefs that underpin the group's identity.

Another similarity is that through the membership of a group (in particular for cults) individuals can become socially isolated and it can lead to alienation from the rest of society – perpetuating a 'them and us' mentality.

Frustration with reduced socio-economic opportunities is another similarity between some AQ-influenced violent extremists and participants in gangs or youth crime. As with AQ-influenced terrorism, participants in other forms of violence may be motivated largely by a desire for vengeance, and may also acquire status as a result of their violent acts.

The literature on individuals becoming involved in AQ-influenced violent extremist groups found that individuals' religious and extremist beliefs intensified as part of the radicalisation process. Intensification of beliefs was also seen as part of the process of engagement in right-wing extremism (Blee, 2003) and cults (Lalich, 2004).

The last similarity is the concept of vengeance for perceived injustice or victimisation, and a greater willingness to participate in violence among individuals with lower socio-economic prospects than with wealthier people. The fact that this theme has emerged across a range of topics and scenarios suggests that it is a strong underlying factor in participation in violence of any sort.

The second REA also highlighted a number of social and psychological factors that are clearly different between AQ-influenced violent extremists and participants in the other forms of violent activity studied. Individuals involved in youth crime and gangs are more likely to have lower educational attainment (including attainment of their parents), come from single parent or dysfunctional families, have psychiatric or personality disorders, have a risk-taking mentality or low self control and have a history of alcohol or drug misuse compared with individuals involved in AQ-influenced violent extremism. In addition, individuals involved in youth crime are more likely to have a history of violence or criminality compared with individuals involved in AQ-influenced violent extremism.

Mirroring the evidence base on factors that make individuals resilient to becoming involved in AQ-influenced violent extremism, very little is known about what factors make individuals resistant to becoming involved in other types of violence. The one study identified (Blum *et al.*, 2003) found that young individuals were less likely to be involved in violence if their parents and schools had high academic expectations of them.

5. Summary and conclusions

The empirical evidence base on what factors make an individual more vulnerable to Al Qa'ida (AQ)-influenced violent extremism is weak. The evidence base on resilience to AQ-influenced violent extremism is even less well developed – very little is known about why certain individuals resort to violence, when other individuals from the same community, with similar experiences, do not become involved in violent activity. The following conclusions are based on the limited empirical evidence base identified by the main Rapid Evidence Assessment (REA).

Individuals involved in AQ-influenced violent extremism are demographically unremarkable and do not stand out as being different from other members of their community. In the West individuals tend to be male, young to middle-aged, married and possibly with children. While individuals tend to be educated to a similar level and have a similar socio-economic status as the broader population in which they live, there is some evidence that individuals may be working at a skill set lower than expected from their educational attainment. There is some evidence that women are increasingly becoming involved in terrorist violence in areas such as Chechnya and Palestine.

The literature identified multiple reasons why individuals decide to engage in AQ-influenced violent extremist activity. Select religious beliefs were found to underpin engagement in AQ-influenced violent extremism and martyrdom. A deeply religious upbringing or education was not found to be a necessary precondition for involvement in AQ-influenced violent extremism with a large number of individuals having a secular upbringing. However, the literature found that both religious and extremist beliefs intensified as individuals became more involved in AQ-influenced violent extremism. A particular personal event or crisis was also found to lead potentially to an individual re-evaluating previously held beliefs and being open to new ideas (cognitive-opening). This can result in the individual being vulnerable to adopting extremist views if exposed to them, particularly from someone close to them socially. The literature supports the assumption that individuals who engage in AQ-influenced violent extremism are no more likely to suffer from mental illness or personality disorders than the general population.

Both political ideology and grievances are consistent motivating factors for driving engagement in AQ-influenced violent extremism. Individuals may act in vengeance for attacks or injustice acted out on themselves or people close to them. In the West, a more important driver than personal grievances may be perceived injustice and violence against Muslims around the world.

Both material (monetary) and non-material (status, power, glory, and honour) rewards are also found to provide motivation for involvement in AQ-influenced violent extremism.

Radicalisation to violent extremism remains overwhelmingly a social process. Family and friends not only provide links to AQ-influenced violent extremist groups, but they can also support and reinforce an individual's decision to join such groups. Through group dynamics and strong interpersonal bonds individual and group views can also become progressively more extreme and violent. Charismatic leaders and individuals can also play a central role in radicalising and recruiting individuals to AQ-influenced violent extremism. They provide a persuasive narrative and justification to potential recruits and can also facilitate individuals joining AQ-influenced violent extremist groups or networks through their various links and connections.

Social settings and spaces are key to individuals becoming involved in AQ-influenced violent extremist groups. They are important as they provide safe environments where violent extremist groups can meet, relationships and bonds can be strengthened, extremist ideologies can be preached and reinforced and recruitment of potential group members can take place. Mosques and prisons are frequently mentioned as key spaces for recruitment to AQ-influenced violent extremist groups. Other locations include educational establishments, cafes and bookshops. However, these are predominantly used as meeting points rather than places of recruitment. In recent years the increasing surveillance and policing of public spaces has resulted in the actual process of radicalisation and recruitment being largely driven to private spaces.

While radicalisation is a social process the Internet can play an important role in supporting radicalisation and recruitment to AQ-influenced violent extremist groups. The Internet reinforces violent extremist ideological messages and enables individuals to find and communicate with like-minded individuals and groups. It also mirrors the dynamics of a social group, producing an environment where extreme views and ideas receive encouragement and support.

As already mentioned, the evidence base on what factors make an individual resilient to participating in AQ-influenced violent extremism is particularly poorly researched, especially relating to people in Western societies. From the little research that was identified, being well-educated and aware about other ethnic or religious groups and being financially stable were found to increase resilience to participating in AQ-influenced violent extremism. One study also suggests that, at least on a community level, experiencing violence does not necessarily lead to violent retaliation.

The lack of evidence for consistent differences between the social background for AQ-influenced violent extremists and their peers is mirrored in the finding that there is no common type of participant in other forms of violent behaviour. As such, it is difficult to conclude that what drove one person to join an extremist or violent group is likely to have influenced another individual to join an AQ-influenced violent extremist group.

Although background factors tended to differ across groups participating in other forms of violent activity, key similarities shared between AQ-influenced terrorism and participation in other violence are:

- the central role of social networks in recruitment to the group or activity;
- the need for places to meet in order to share and develop the ideology or beliefs that underpin the group's identity;
- group membership serves to reinforce a sense of alienation from mainstream society, perpetuating a 'them and us' mentality (particularly in relation to cults and other violent extremist organisations);
- frustration with reduced socio-economic opportunities (particularly participants in gangs or youth crime); and
- desire for vengeance and status within their group (particularly in relation to gangs or youth crime).

Other social and psychological factors are clearly different between AQ-influenced violent extremists and participants in the other forms of violent activity studied, in particular:

- family structure and stability;

- educational attainment;
- personality and psychiatric problems;
- drug and alcohol abuse; and
- previous criminal convictions.

Little is known about what factors make other at-risk individuals resistant to becoming involved in violence.

5.1 Knowledge gaps and further research

Though the evidence base has been identified as generally weak, based on an objective methodological analysis, when the nature of the study matter is considered, such weakness is understandable. Studies with few participants are to be expected where the total relevant population is small, as is the case with terrorists. Observational studies are predominant in an area of research where randomisation to controlled trials is often unattainable.

Despite these caveats, a number of relevant studies were identified. However, key gaps in the evidence base remain, in particular:

- studies on the reasons for UK residents' participation in AQ-influenced terrorism;
- studies on reasons why non-activists who have risk factors for radicalisation were able to resist involvement in terrorism, either in the UK or elsewhere; and
- studies investigating whether changing any factor associated with radicalisation can prevent participation in violent extremism.

Only three studies were identified that looked specifically at AQ-influenced terrorism in the UK (Quiggin, 2010; Wiktorowicz, 2004 and 2005), and, from the supplementary evidence, only one study (on youth crime) was based in the UK (Case and Haines, 2007). Issues discussed previously about how generalisable this evidence base is across national and cultural boundaries means that the implications of the evidence for UK policy makers are still uncertain.

No studies were found that looked specifically at reasons why individuals who might be considered 'at risk' chose not to become involved in violent extremism. This is an important gap in the evidence base, and one that should be much easier to fill, since non-violent individuals are easier to identify and more likely to agree to participation in research than terrorists.

The reason for carrying out these REAs was to add to the knowledge base for the *Prevent* strategy. As such, it is disappointing, but not surprising, that no research was identified that evaluated the effects of modifying likely risk factors on subsequent participation in violent extremism. Such studies would be difficult and expensive to carry out at an individual participant level, but it is to be hoped that evaluation of programmes such as the *Prevent* strategy will identify any impact of the interventions on levels of violence, at least at a community level.

A Demos report on violent Muslim radicals and terrorists, which was published after the search date for the main REA, came to some conclusions that are relevant to this report (Bartlett *et al.*, 2010):

- Although all young Muslims had experienced some social exclusion, and had negative feelings about government and foreign policy, policing and intelligence services,

terrorists were unique in loathing Western society and culture, whereas non-violent radicals had some affection for Western tolerance and pluralism.

- Both non-violent radicals and violent terrorists exhibited support for Sharia law and the Caliphate, but terrorists showed an exclusionary ‘us versus them’ ideology, with a rejection of ‘them’.
- Non-violent Muslim radicals saw Islam as a religion based on justified violence, but refused to accept that violent jihad in the West was acceptable.
- Muslims who came to adopt radical views did not automatically progress to becoming terrorists. The path to violence was characterised by a culture of violence, in-group peer pressure, and an internal code of honour that awarded status to individuals who exhibited violent behaviour. Early manifestations of progression to violence include clashing with mosque leaders and others, distributing videos and literature promoting violent jihad, and involvement with criminal activity related to such behaviour.
- As violent behaviour was associated with enhanced status among AQ-influenced terrorists, some individuals who were progressing down the route to violence were motivated to publicise their views and activities. The wider community is therefore a useful source of information, and exposure to non-violent Muslim radicals may deter some would-be terrorists from active violence.

6. References

6.1 Studies included in the review, main Rapid Evidence Assessment

Alonso, R. (2010) 'Radicalisation and recruitment among jihadist terrorists in Spain: main patterns and subsequent counter-terrorist measures'. In *Understanding violent radicalisation: Terrorist and jihadist movements in Europe,* Ranstorp, M. (ed), pp 207–230. London and New York: Routledge.

Alonso, R. and Reinares, F. (2006) 'Maghreb immigrants becoming suicide terrorists: a case study on religious radicalization processes in Spain'. In *Root causes of suicide terrorism: the globalization of martyrdom,* Pedahzur, A. (ed), pp 179–198. London and New York: Routledge.

Amjad, N. (2009) 'Identifying and changing the normative beliefs about aggression which lead young Muslim adults to join extremist anti-semitic groups in Pakistan', *Aggressive Behavior*, *35*(6), pp 514–519.

Araj, B. (2008) 'Harsh state repression as a cause of suicide bombing: the case of the Palestinian–Israeli conflict', *Studies in Conflict & Terrorism*, 31(4), pp 284–303.

Asal, V., Fair, C. C. and Shellman, S. (2008) 'Consenting to a child's decision to join a jihad: insights from a survey of militant families in Pakistan', *Studies in Conflict & Terrorism*, 31(11), pp 973–994.

Bakker, E. (2006) *Jihadi terrorists in Europe: their characteristics and the circumstances in which they joined the jihad: an exploratory study*. The Hague: Netherlands Institute of International Relations Clingendael.

Beg, S. and Bokhari, L. (2009) 'Pakistan: In search of a disengagement strategy'. In *Leaving terrorism behind: individual and collective disengagement,* Bjørgo, T. and Horgan, J. (eds), pp 224–242. London and New York: Routledge.

Change Institute, The (2008) *Studies into violent radicalisation; Lot 2 The beliefs ideologies and narratives*. London: A study carried out by the Change Institute for the European Commission (Directorate General Justice, Freedom and Security).

Fair, C. C. (2008) 'Who are Pakistan's militants and their families?', *Terrorism and Political Violence*, 20(1), pp 49–65.

Groen, J. and Kranenberg, A. (2006) *Strijdsters van Allah: radicale moslima's en het Hofstadnetwerk*. Amsterdam: de Volkskrant, Meulenhoff.

Gupta, D. K. (2005) 'Exploring roots of terrorism'. In *Root causes of terrorism,* Bjørgo, T. (ed), pp 16–32. London and New York: Routledge.

Hegghammer, T. (2006) 'Militant Islamism in Saudi Arabia: patterns of recruitment to Al-Qaida on the Arabian peninsula' in *Paths to global Jihad: radicalisation and recruitment to terror networks*. Presented at the FFI Seminar, Oslo.

Jacques, K. and Taylor, P. J. (2008) 'Male and female suicide bombers: different sexes, different reasons?', *Studies in Conflict & Terrorism*, 31(4), pp 304–326.

Jensen, M. T. (2006) *Jihad in Denmark. An overview and analysis of jihadi activity in Denmark 1990-2006*, DIIS Working Paper 2006:35. Copenhagen: Danish Institute for International Studies.

Jordán, J., Mañas, F. M. and Horsburgh, N. (2008) 'Strengths and weaknesses of grassroot jihadist networks: the Madrid bombings', *Studies in Conflict & Terrorism*, 31(1), pp 17–39.

Lyall, J. (2009) 'Does indiscriminate violence incite insurgent attacks? Evidence from Chechnya', *Journal of Conflict Resolution*, 53(3), pp 331–362.

Merari, A. (2005) 'Social, organizational and psychological factors in suicide terrorism'. In *Root causes of terrorism,* Bjørgo, T. (ed), pp 70–86. London and New York: Routledge.

Nesser, P. (2004) *Jihad in Europe. Exploring the motivations for Salafi-Jihadi terrorism in Europe post-millennium*. Oslo: Department of Political Science, University of Oslo.

Nesser, P. (2010) 'Joining jihadi terrorist cells in Europe: exploring motivational aspects of recruitment and radicalization'. In *Understanding violent radicalisation: Terrorist and jihadist movements in Europe*, Ranstorp, M. (ed), pp 87–114. London and New York: Routledge.

Neumann, P. R. and Rogers, B. (2007) *Recruitment and mobilisation for the Islamist militant movement in Europe*. London: International Centre for the Study of Radicalisation and Political Violence, King's College London.

Pape, R. A. (2006) 'Suicide terrorism and democracy: what we've learned since 9/11', *Policy Analysis*, 582*,* pp 1–20.

Pedahzur, A. and Perliger, A. (2006) 'The changing nature of suicide attacks – a social network perspective', *Social Forces*, 84(4), pp 1987–2008.

Pedahzur, A., Perliger, A. and Weinberg, L. (2003) 'Altruism and fatalism: The characteristics of Palestinian suicide terrorists', *Deviant Behavior*, 24(4), pp 405–424.

Post, J. M., Sprinzak, E. and Denny, L. M. (2003) 'The terrorists in their own words: interviews with 35 incarcerated Middle Eastern terrorists', *Terrorism and Political Violence*, 15(1), pp 171–184.

Quiggin, T. (2010) 'Contemporary Jihadist narratives: the case of Momin Khawaja'. In *Countering violent extremist narratives*. The Hague: National Coordinator for Counterterrorism (NCTb).

Sageman, M. (2004) *Understanding terror networks*. Philadelphia: University of Pennsylvania Press.

Sageman, M. (2008) *Leaderless jihad: terror networks in the twenty-first century*. Philadelphia: University of Pennsylvania Press.

Schbley, A. H. (2000) 'Torn between God, family, and money: the changing profile of Lebanon's religious terrorists', *Studies in Conflict & Terrorism*, 23(3), pp 175–196.

Schbley, A. H. (2003) 'Defining religious terrorism: a causal and anthological profile', *Studies in Conflict & Terrorism*, 26(2), pp 105–134.

Silber, M. D. and Bhatt, A. (2007) *Radicalization in the West: the homegrown threat*. New York: New York Police Department Intelligence Division.

Slootman, M. and Tillie, J. (2006) *Processes of radicalisation. Why some Amsterdam Muslims become radicals.* Amsterdam: Institute for Migration and Ethnic Studies.

Smith, A. G. (2004) 'From words to action: exploring the relationship between a group's value references and its likelihood of engaging in terrorism', *Studies in Conflict & Terrorism*, 27(5), pp 409–437.

Speckhard, A. (2006) 'The making of a martyr: Chechen suicide terrorism', *Studies in Conflict & Terrorism*, 29(5), pp 429–492.

Stern, J. (2004) *Terror in the name of God: Why religious militants kill*. New York: Harper Collins Publishers.

Trujillo, H. M., Jordán, J., Gutiérrez, J. A. and González-Cabrera, J. (2009) 'Radicalization in prisons? Field research in 25 Spanish prisons', *Terrorism and Political Violence*, 21(4), pp 558–579.

Weinberg, L., Pedahzur, A. and Canetti-Nisim, D. (2003) 'The social and religious characteristics of suicide bombers and their victims', *Terrorism and Political Violence*, 15(3), pp 139–153.

Wiktorowicz, Q. (2004) 'Joining the cause: Al-Muhajiroun and radical Islam'. In *The roots of Islamic radicalism conference*. New Haven, CT: Yale University Press.

Wiktorowicz, Q. (2005) *Radical Islam rising: Muslim extremism in the West*. Lanhan, Boulder, Toronto, Oxford: Rowman & Littlefield Pub Inc.

Yom, S. and Saleh, B. (2004) 'Palestinian suicide bombers: A statistical analysis', Economists Allied for Arms Reduction (ECAAR), News Network, 8.

6.2 Studies excluded from the main Rapid Evidence Assessment on quality or relevance scores

Berrebi, C. (2007) 'Evidence about the link between education, poverty and terrorism among Palestinians', *Peace Economics, Peace Science and Public Policy*, *13*(1).

Björkman, C. (2010) 'Salafi-Jihadi terrorism in Italy'. In *Understanding violent radicalisation: Terrorist and jihadist movements in Europe,* Ranstorp, M. (ed), pp 231–255. London and New York: Routledge.

Blomberg, S. B., Hess, G. D. and Weerapana, A. (2004) 'Economic conditions and terrorism', *European Journal of Political Economy*, 20(2), pp 463–478.

Hafez, M. M. (2006) 'Rationality, culture, and structure in the making of suicide bombers: a preliminary theoretical synthesis and illustrative case study', *Studies in Conflict & Terrorism*, *29*(2), pp 165–185.

Jordán, J. and Horsburgh, N. (2005) 'Mapping jihadist terrorism in Spain', *Studies in Conflict & Terrorism*, 28(3), pp 169–191.

Krueger, A. B. and Malečková, J. (2003) 'Education, poverty and terrorism: Is there a causal connection?', *The Journal of Economic Perspectives*, 17(4), pp 119–144.

Lai, B. (2007) '"Draining the swamp": an empirical examination of the production of international terrorism, 1968–1998', *Conflict Management and Peace Science*, 24(4), pp 297–310.

Marret, J. (2010) 'The Jihadists and anti-terrorist challenges in France: an overview'. In *Understanding violent radicalisation: Terrorist and jihadist movements in Europe,* Ranstorp, M. (ed), pp 191–206. London and New York: Routledge.

Nesser, P. (2006) 'Jihadism in Western Europe after the invasion of Iraq: tracing motivational influences from the Iraq war on Jihadist terrorism in Western Europe', *Studies in Conflict & Terrorism*, 29(4), pp 323–342.

O'Duffy, B. (2008) 'Radical atmosphere: explaining Jihadist radicalization in the UK', *Political Science & Politics*, 41(1), pp 37–42.

Piazza, J. A. (2006) 'Rooted in poverty? Terrorism, poor economic development, and social cleavages', *Terrorism and Political Violence*, 18(1), pp 159–177.

Piazza, J. A. (2007) 'Draining the swamp: democracy promotion, state failure, and terrorism in 19 Middle Eastern countries', *Studies in Conflict & Terrorism*, 30(6), pp 521–539.

Post, J. M. (2005) 'The socio-cultural underpinnings of terrorist psychology: "When hatred is bred in the bone"'. In *Root causes of terrorism,* Bjørgo, T. (ed), pp 54–69. London and New York: Routledge.

Sageman, M. (2006) 'Islam and al Qaeda'. In *Root causes of suicide terrorism: the globalization of martyrdom,* Pedahzur, A. (ed), pp 122–131. London and New York: Routledge.

Santos Bravo, A. B. and Mendes Dias, C. M. (2006) 'An empirical analysis of terrorism: deprivation, Islamism and geopolitical factors', *Defence and Peace Economics*, 17(4), pp 329–341.

Schbley, A. H. (2006) 'Toward a Common Profile of Religious Terrorism: Some Psychosocial Determinants of Christian and Islamic Terrorists', *Police Practice and Research: An International Journal*, 7(4), pp 275-292.

Speckhard, A. and Akhmedova, K. (2005) 'Talking to terrorists', *Journal of Psychohistory*, 33(2), pp 125–156.

Testas, A. (2004) 'Determinants of terrorism in the Muslim world: an empirical cross-sectional analysis', *Terrorism and Political Violence*, 16(2), pp 253–273.

Weinberg, L., Eubank, W. L. and Francis, E. A. (2008) 'The cost of terrorism: The relationship between international terrorism and democratic governance', *Terrorism and Political Violence*, 20(2), pp 257–270.

6.3 Studies included in the second supplementary Rapid Evidence Assessment

Banyard, V. L., Cross, C. and Modecki, K. L. (2006) 'Interpersonal violence in adolescence: ecological correlates of self-reported perpetration', *Journal of interpersonal violence*, 21(10), pp 1314–1332.

Baskin-Sommers, A. and Sommers, I. (2006) 'Methamphetamine use and violence among young adults', *Journal of Criminal Justice*, 34(6), pp 661–674.

Becker, K. D., Stuewig, J., Herrera, V. M. and McCloskey, L. A. (2004) 'A study of firesetting and animal cruelty in children: family influences and adolescent outcomes', *Journal of American Academy of Child & Adolescent Psychiatry*, 43(7), pp 905–912.

Beyers, J. M., Loeber, R., Wikström, P. O. and Stouthamer-Loeber, M. (2001) 'What predicts adolescent violence in better-off neighborhoods?' *Journal of Abnormal Child Psychology*, 29(5), pp 369–381.

Bjørgo, T. (2009) 'Processes of disengagement from violent groups of the extreme right'. In *Leaving terrorism behind: individual and collective disengagement*, Bjørgo, T. and Horgan, J. (eds). London and New York: Routledge.

Blazak, R. (2001) 'White boys to terrorist men: target recruitment of Nazi skinheads', *American Behavioral Scientist*, 44(6), pp 982–1000.

Blee, K. M. (2003) *Inside organized racism: women in the hate movement*. Berkeley: University of California Press.

Blum, J., Ireland, M. and Blum, R. W. (2003) 'Gender differences in juvenile violence: A report from Add Health', *Journal of adolescent health*, 32(3), pp 234–240.

Borum, R. (2004) *Psychology of terrorism*. Tampa: University of South Florida.

Brezina, T. (2008) 'Recognition denial, need for autonomy, and youth violence', *New Directions for Youth Development*, 119, pp 111–128.

Case, S. and Haines, K. (2007) 'Offending by young people: a further risk factor analysis', *Security Journal*, 20(2), pp 96–110.

Christoffersen, M. N., Francis, B. and Soothill, K. (2003) 'An upbringing to violence? Identifying the likelihood of violent crime among the 1966 birth cohort in Denmark', *Journal of Forensic Psychiatry & Psychology*, 14(2), pp 367–381.

De Coster, S., Heimer, K. and Wittrock, S. M. (2006) 'Neighborhood disadvantage, social capital, street context, and youth violence', *Sociological Quarterly*, 47(4), pp 723–753.

Desmond, S. A. and Kubrin, C. E. (2009) 'The power of place: immigrant communities and adolescent violence', *Sociological Quarterly*, 50(4), pp 581–607.

Edens, J. F., Campbell, J. S., and Weir, J. M. (2006) 'Youth psychopathy and criminal recidivism: a meta-analysis of the psychopathy checklist measures', *Law and Human Behavior*, 31(1), pp 53–75.

Elonheimo, H., Nielmela, S., Parkkola, K., Multimaki, P., Helenius, H., Nuutila, A. and Sourander, A. (2007) 'Police-registered offenses and psychiatric disorders among young males: the Finnish "From a boy to a man" birth cohort study', *Social Psychiatry and Psychiatric Epidemiology*, 42(6), pp 477–84.

Fergusson, D. M. and Horwood, L. J. (2000) 'Alcohol abuse and crime: a fixed-effects regression analysis', *Addiction*, 95(10), pp 1525–1536.

Fergusson, D. M., Swain-Campbell, N. R. and Horwood, L. J. (2002) 'Deviant peer affiliations, crime and substance use: a fixed effects regression analysis', *Journal of Abnormal Child Psychology*, 30(4), pp 419–430.

Fittkau, K. H. and Graser, P. (2008) 'Eine typologie von tötungsdelikten, begangen durch jugendgrupper' [A typology of homicides committed by youth groups], *Archiv fuer Kriminologie,* 222(1–2), pp 31–37.

Gaarder, E. (2008) 'Risk reward: the impact of animal rights activism on women', *Society and Animals*, 16(1), pp 1–22.

Greco, R. and Grattagliano, I. (2009) 'Criminalità minorile: general strain theory e il tratto di aggression proattiva-reattiva' [Juvenile criminality: general strain theory and the reactive-proactive aggression trait], *Rivista di Psichiatria*, 44(5), pp 328–336.

Griffin, M. L. and Hepburn, J. R. (2006) 'The effect of gang affiliation on violent misconduct among inmates during the early years of confinement', *Criminal Justice and Behavior*, 33(4), pp 419–466.

Hawkins, J. D., Herrenkohl, T. I., Farrington, D. P., Brewer, D., Catalano, R. F., Harachi, T. W. and Cothern, L. (2000) 'Predictors of youth violence', *Juvenile Justice Bulletin*, 63, pp 452–459.

Herrera, V. M. and McCloskey, L. A. (2001) 'Gender differences in the risk for delinquency among youth exposed to family violence', *Child abuse & neglect*, 25(8), pp 1037–1051.

Herrera, V. M. and McCloskey, L. A. (2003) 'Sexual abuse, family violence, and female delinquency: findings from a longitudinal study', *Violence and victims*, 18(3), pp 319–334.

Hill, K. G., Howell, J. C., Hawkins, J. D. and Battin-Pearson, S. R. (1999) 'Childhood risk factors for adolescent gang membership: results from the Seattle Social Development Project', *Journal of Research in Crime and Delinquency*, 36(3), pp 300–322.

Hoeve, M., Blokland, A., Dubas, J. S., Loeber, R., Gerris, J. R. and van der Laan, P. H. (2008) 'Trajectories of delinquency and parenting styles', *Journal of abnormal child psychology*, 36(2), pp 223–235.

Hosser, D., Raddatz, S. and Windzio, M. (2007) *Child maltreatment, revictimization, and violent behaviour,* 22(3), pp 318–333. New York: Springer Publishing Company.

Johnson, A. O., Mink, M. D., Harun, N., Moore, C. G., Martin, A. B. and Bennett, K. J. (2008) 'Violence and drug use in rural teens: national prevalence estimates from the 2003 youth risk behavior survey', *Journal of School Health*, 78(10), pp 554–561.

Kjelsberg, E. (2002) 'Pathways to violent and non-violent criminality in an adolescent psychiatric population', *Child psychiatry and human development*, 33(1), pp 29–42.

Kuhns, J. B. (2005) 'The dynamic nature of the drug use/serious violence relationship: a multi-causal approach', *Violence and Victims*, 20(4), pp 433–454.

Lalich, J. (2004) *Bounded Choice: True Believers and Charismatic Cults*. Berkeley: University of California Press.

Lansford, J. E., Miller-Johnson, S., Berlin, L. J., Dodge, K. A., Bates, J. E. and Pettit, G. S. (2007) 'Early physical abuse and later violent delinquency: A prospective longitudinal study', *Child Maltreatment*, 12(3), pp 233–245.

Lennings, C. J., Copeland, J. and Howard, J. (2003) 'Substance use patterns of young offenders and violent crime', *Aggressive Behavior*, 29(5), pp 414–422.

Lim, L. L. and Chang, W. C. (2007) 'Role of collective self-esteem on youth violence in a collective culture', *International Journal of Psychology*, 44(1), pp 71–78.

Lindberg, N., Laajasalo, T., Holi, M., Putkonen, H., Weizmann-Henelius, G. and Häkkänen-Nyholm, H. (2009) 'Psychopathic traits and offender characteristics – a nationwide consecutive sample of homicidal male adolescents', *BMC Psychiatry*, 9(1), p 18.

Martín, M. J., Martínez, J. M. and Rosa, A. (2009) 'Las bandas juveniles violentas de Madrid: su socialización y aculturación' [Violent youth gangs in Madrid: socialisation and culturalisation], *Revista Panamericana de Salud Pública*, 26, pp 128–136.

Mclaughlin, C. R., Daniel, J. and Joost, T. F. (2000) 'The relationship between substance use, drug selling, and lethal violence in 25 juvenile murderers', *Journal of Forensic Sciences*, 45(2), pp 349–353.

Moffitt, T. E., Caspi, A., Harrington, H. and Milne, B. J. (2002) 'Males on the life-course-persistent and adolescence-limited antisocial pathways: follow-up at age 26 years', *Development and Psychopathology*, 14(1), pp 179–207.

Morash, M. and Moon, B. (2007) 'Gender differences in the effects of strain on the delinquency of South Korean youth', *Youth & Society*, 38(3), pp 300–321.

Nieuwbeerta, P. and van der Laan, P. (2006) 'Minors involved in murder and manslaughter: An exploration of the situation in the Netherlands'. In *Children who commit acts of serious interpersonal violence,* Hagell, A. and Jeyarajah-Dent, R. (eds), pp 92–108. London and Philadelphia: Jessica Kingsley.

Nofziger, S. (2001) *Bullies, fights, and guns: testing self-control theory with juveniles*. New York: LFB Scholarly Publishing.

Piquero, A. R., MacDonald, J., Dobrin, A., Daigle, L. E. and Cullen, F. T. (2005) 'Self-control, violent offending, and homicide victimization: Assessing the general theory of crime', *Journal of Quantitative Criminology*, 21(1), pp 55–71.

Sauvola, A., Koskinen, O., Jokelainen, J., Hakko, H. A., Jarvelin, M. R. and Rasanen, P. (2002) 'Family type and criminal behaviour of male offspring: the Northern Finland 1966 Birth Cohort Study', *International Journal of Social Psychiatry*, 48(2), pp 115–121.

Smith, B. L. and Damphousse, K. R. (2001) *American terrorism study: patterns of behaviour, investigation and prosecution of American terrorists, Final Report* (No. NCJ 193420). National Criminal Justice reference Service http://www.ncjrs.gov/app/Publications/Abstract.aspx?ID=193420

Sourander, A., Elonheimo, H., Niemela, S., Nuutila, A., Helenius, H., Sillanmaki, L. and Piha, J. (2006) 'Childhood predictors of male criminality: a prospective population-based follow-up study from age 8 to late adolescence', *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(5), pp 578–586.

Thurnherr, J., Berchtold, A., Michaud, P. A., Akre, C. and Suris, J. C. (2008) 'Violent adolescents and their educational environment: a multilevel analysis', *Journal of Developmental & Behavioral Pediatrics*, 29(5), pp 351–359.

Vaughn, M. G., Wallace Jr, J. M., Davis, L. E., Fernandes, G. T. and Howard, M. O. (2008) 'Variations in mental health problems, substance use, and delinquency between African American and Caucasian juvenile offenders: implications for re-entry services', *International Journal of Offender Therapy and Comparative Criminology*, 52(3), pp 311–329.

Vowell, P. R. and May, D. C. (2000) 'Another look at classic strain theory: Poverty status, perceived blocked opportunity, and gang membership as predictors of adolescent violent behavior', *Sociological Inquiry*, 70(1), pp 42–60.

Wadsworth, T. (2006) 'The meaning of work: conceptualizing the deterrent effect of employment on crime among young adults', *Sociological Perspectives*, 49(3), pp 343–368.

Zagar, R., Busch, K., Grove, W., Hughes, J. and Arbit, J. (2009) 'Looking forward and backward in records for risks among homicidal youth', *Psychological Reports*, 104(1), pp 103–127.

6.4 Studies excluded from the second supplementary Rapid Evidence Assessment on quality or relevance scores

Arseneault, L., Tremblay, R. E., Boulerice, B., Séguin, J. R. and Saucier, J. F. (2000) 'Minor physical anomalies and family adversity as risk factors for violent delinquency in adolescence', *American Journal of Psychiatry*, 157(6), pp 9–17.

Della Porta, D. (2009) 'Leaving underground organisations: a sociological analysis of the Italian case'. In *Leaving terrorism behind: individual and collective disengagement,* Bjørgo, T. and Horgan, J. (eds). London and New York: Routledge.

Falk, A. and Zweimüller, J. (2005) *Unemployment and right-wing extremist crime,* Discussion Paper Series, No. 4997. London: Centre for Economic Policy Research.

Ganier, C. J. (2009) *Does money matter? Terrorism and income distribution*, Masters' Thesis. Washington: Georgetown University.

Gatti, U., Tremblay, R. E. and Larocque, D. (2003) 'Civic community and juvenile delinquency: A study of the regions of Italy', *British Journal of Criminology*, 43(1), pp 22–40.

Goethals, K. R. and Van Marle, H. J. C. (2009) 'Circumstantial risks in psychotic offenders and their criminal history: a review of the literature', *International Journal of Forensic Mental Health*, 8(1), pp 41–49.

Khan, R. and Cooke, D. J. (2008) 'Risk factors for severe inter-sibling violence: a preliminary study of a youth forensic sample', *Journal of interpersonal violence* 23(11), pp 1513–1530.

Kpangban, E., Umudhe, S. E. and Ajaja, O. P. (2008) 'The menace of secret cults in higher educational institutions in Nigeria', *Journal of Social Sciences*, 17(2), pp 139–148.

Kubrin, C. E. and Wadsworth, T. (2003) 'Identifying the structural correlates of African American killings: what can we learn from data disaggregation?' *Homicide Studies*, 7(1), pp 3–35.

Kyriacou, D. N., Hutson, H., Anglin, D., Peek-Asa, C. and Kraus, J. F. (1999) 'The relationship between socioeconomic factors and gang violence in the city of Los Angeles', *The Journal of Trauma*, 46(2), pp 334–339.

Lacourse, E., Nagin, D., Tremblay, R. E., Vitaro, F. and Claes, M. (2003) 'Developmental trajectories of boys' delinquent group membership and facilitation of violent behaviors during adolescence', *Development and Psychopathology*, 15(1), pp 183–197.

Lifton, R. J. (1999) *Destroying the world to save it: Aum Shinrikyo, apocalyptic violence, and the new global terrorism*. New York: Henry Holt and Co.

Miranda, D. and Claes, M. (2004) 'Rap music genres and deviant behaviors in French-Canadian adolescents', *Journal of youth and adolescence*, 33(2), pp 113–122.

Piazza, J. A. (2006) 'Rooted in poverty? Terrorism, poor economic development, and social cleavages', *Terrorism and Political Violence*, 18(1), pp 159–177.

Reed, E., Silverman, J. G., Raj, A., Rothman, E. F., Decker, M. R., Gottlieb, B. R., Molnar, B. E. and Miller, E. (2008) 'Social and environmental contexts of adolescent and

young adult male perpetrators of intimate partner violence: a qualitative study', *American Journal of Men's Health*, 2(3), pp 260–271.

Sherley, A. J. (2007) *Examining country risk of international terrorism: A cross-national analysis of macro-level vulnerabilities*. PhD Thesis. Newark: Rutgers, The State University Of New Jersey-Newark.

6.5 Other works cited

Bartlett, J., Birdwell, J. and King, M. (2010) *The edge of violence. A radical approach to extremism*. London: Demos.

Cesari, J. (2004) *When Islam and democracy meet: Muslims in Europe and in the United States*. Basingstoke: Palgrave Macmillan.

Clary, E. G., & Snyder, M. (1999) 'The motivations to volunteer: Theoretical and practical considerations', *Current Directions in Psychological Science, 8, pp* 156-159.

Clayton, R. R. (1992) 'Transitions in drug use: risk and protective factors'. In *Vulnerability to drug abuse,* Glanz, M. and Pickens, R. (eds), pp 15-52. Washington, D. C.: American Psychological Association.

Coolsaet, R. (2005) *Between al-Andalus and a failing integration: Europe's pursuit of a long-term counter-radicalisation strategy in the post-al-Qaeda era* (Egmont Paper No. 5). Brussels: Royal Institute for International Relations.

Farrington, D. P. and Welsh, B. C. (2008) *Saving children from a life of crime: early risk factors and effective interventions*. Oxford: Oxford University Press.

Fisher, M. (2007) *Protective factors for illicit drug use among young people: literature review*. London: Home Office.

Granik, S. (2005) 'A Reconceptualisation of the Antecedents of Party Activism: A Multidisciplinary Approach', *Political Studies, 53(3),* pp 598–620.

HM Government (2008) *Preventing Violent Extremism Learning and Development exercise*. London: Her Majesty's Inspectorate of Constabulary and the Audit Commission.

HM Government (2008) *The Prevent strategy: a guide for local partners in England*. London: HM Government.

HM Government (2009) *The United Kingdom's strategy for countering international terrorism*. London: HM Government.

Hoffman, B. (2006) *Inside terrorism.* New York: Columbia University Press.

Khosrokhavar, F. (2005) *Suicide bombers. Allah's new martyrs*. London: Pluto Press.

Kirby, A. (2007) 'The London bombers as "self-starters": a case study in indigenous radicalisation and the emergence of autonomous cliques', *Studies in Conflict &Terrorism*, 30(5), pp 422–424.

Leuprecht, C., Hataley, T., Moskalenko, S. and McCauley, C. (2010) 'Narratives and counter-narratives for global Jihad: opinion versus action', *Countering violent extremist narratives,* pp 58–60. The Hague: National Coordinator for Counterterrorism (NCTb).

Lieven, A. (2008) 'The economics of radicalisation', *Perspectives on radicalisation and political violence*. London: The International Centre for the Study of Radicalisation.

Mirza, M., Senthilkumaran, A. and Zein, J. (2007) *Living apart together: British Muslims and the paradox of multiculturalism*. London: Policy Exchange.

Post, J. M. (2008) *The mind of the terrorist: The Psychology of terrorism from the IRA to Al Qaeda*. New York: Palgrave Macmillan.

Rosenstone S., and Hansen, J. M. (1993) *Mobilization, participation and democracy in America*. New York; MacMillan.

Roy, O. (2006) *Globalized Islam: The search for a new ummah*. New York: Columbia University Press.

Smelser, N. J. (2007) *The faces of terrorism: social and psychological dimensions*. Princeton, NJ: Princeton University Press.

Staub, E. (2007) 'Preventing violence and terrorism and promoting positive relations between Dutch and Muslim communities in Amsterdam', *Peace and Conflict: Journal of Peace Psychology*, 13(3), pp 333–360.

Vertigans, S. (2007) 'Routes into "Islamic" terrorism: dead ends and spaghetti junctions', *Policing*, 1(4), pp 447–459.

Winter, T. (2007) *Islamism and Europe's Muslims: recent trends' in Muslim integration: challenging conventional wisdom in Europe and the United States*. Washington, D. C: The Centre for Strategic and International Studies.

6.6 Peer review suggestions for additional resources

Peer reviewers of this report suggested the following additional references as being relevant to this report, which did not meet the inclusion criteria.

Al-Rasheed, M. and Shterin, M. (eds) (2009) *Dying for faith: religiously motivated violence in the contemporary world*. London and New York: I. B. Tauris.

Barkun, M. (ed) (1996) *Millennialism and violence*. London: Frank Cass.

Berlet, C. and Lyons, M. N. (2000) *Right-wing populism in America*. New York: Guilford Press.

Brandon, J. (2009) *Unlocking Al Qaeda. Islamic extremism in British prisons*. London: Quilliam Foundation.

Bromley, D. G. and Melton, J. G. (eds) (2002) *Cults, religion and violence*. Cambridge: Cambridge University Press.

Catanzaro, R. (ed) (1991) *The Red Brigades and left-wing terrorism in Italy.* London: Pinter.

Dawson, L. L. (2006) 'Psychopathologies and the attribution of charisma: a critical introduction to the psychology of charisma and the explanation of violence in new religious movements', *Nova Religio,* 10(2), pp 3–28.

Della Porta, D. (1995) *Social movements, political violence and the state*. Cambridge: Cambridge University Press

Edwards, P. (2009) '*More work! Less pay!' Rebellion and repression in Italy, 1972–77*. Manchester: Manchester University Press.

Freilich, J. D., Newman, G. R. and Clarke, R. V. (2009) *Reducing terrorism through situational crime prevention*. New York: Criminal Justice Press.

Hall, J. R. (2009) *Apocalypse: from antiquity to the empire of modernity*. Cambridge: Polity.

Juergensmeyer, M. (2001) *Terror in the mind of God: the global rise of religious violence*. Berkeley: University of California Press.

Kepel, G. (2004) *The war for Muslim minds*. Cambridge MA: Harvard University Press.

Kepel, G. (2006) *Jihad: the trail of political Islam.* Oxford: I. B. Tauris.

Khosrokhavar, F. (2009) *Inside Jihadism: understanding Jihadi movements worldwide*. Boulder, CO: Paradigm Publishers

Kushner, H. W. (1996) 'Suicide bombers: business as usual', *Studies in Conflict & Terrorism,* 19(4), pp 329–337.

Mayer, J. - F. (2001) 'Cults, violence and religious terrorism: an international perspective', *Studies in Conflict & Terrorism,* 24, pp 361–376.

McCauley, C. and Moskalenko, S. (2008) 'Mechanisms of political radicalization: pathways toward terrorism', *Terrorism and Political Violence,* 20(3), pp 415–33.

Moss, D. (1989) *The politics of left-wing violence in Italy, 1969–85.* London: Macmillan.

Reader, I. (2000) *Religious violence in contemporary Japan: the case of Aum Shinrikyo*. Richmond, Sy: Curzon.

Taylor, M. and Horgan, J. A. (2006) 'Conceptual framework for addressing psychological process in the development of the terrorist', *Terrorism and Political Violence*, 18, pp 585–601.

Vertigans, S. (2009) *Militant Islam. A sociology of characteristics, causes and consequences.* London: Routledge.

Wallis, J. (2007) 'Review essay. Recent studies on religion and violence', *Nova Religio,* 11(1), pp 97–104.

Wessinger, C. (2000) *How the Millennium comes violently: from Jonestown to Heaven's Gate*. Chappaqua, NY: Seven Bridges Press.

Wessinger, C. (ed) (2000) *Millennialism, persecution and violence: historical cases*. Syracuse, NY: Syracuse University Press.

Wright, S. (2007) *Patriots, politics and the Oklahoma city bombing*. Cambridge: Cambridge University Press.

7. Appendix A: Description of methods

7.1 Searching

Relevant literature was searched for, using research databases, websites, and references supplied by our expert adviser, Dr Peter Neumann. The following databases were searched for the Rapid Evidence Assessments (REAs):

- ASSIA
- BL Direct
- CJA
- Google Scholar
- ISI Web of Knowledge
- NCJRS
- PsycInfo
- Sociological Abstracts
- SPP
- Urbadoc
- WPSA

The search for the main REA question was run in December 2009, using the following search string (with the date limit 1999–present):

> (qaida OR qaeda OR qa'ida OR qa'eda OR jihad* OR ((muslim* OR islam*) AND (extremis* OR radical* OR terroris* OR violen*)))
> AND (vulnerab* OR resilien* OR susceptib* OR determinant* OR trigger* OR antecedent* OR predictor* OR predictive OR "risk factors" OR indicator* OR resistance OR "protective factors")

The search for the supplementary topics was run in March 2010, using the following search string (with the date limit 1999–present):

Animal rights activism:
(kw=(Animal rights and (extremis* or activis*)) and (kw=(determinant* OR antecedent* OR predictor* OR predictive OR "risk factors" or vulnerability or resilience))

Cults:
(kw=(cult or cults)) and (kw=(determinant* OR antecedent* OR predictor* OR predictive OR "risk factors" or vulnerability or resilience)))

Gangs:
(kw=("gangs" or gang*)) and (kw=(determinant* OR antecedent* OR predictor* OR predictive OR "risk factors" or vulnerability or resilience))

Right-wing extremism:
(kw=((right-wing or right wing) and (extremis*)) or neo nazi or neo-nazi or fascis*) and (kw=(determinant* OR antecedent* OR predictor* OR predictive OR “risk factors” or vulnerability or resilience))

Terrorism in general:
(KW=(“terrorism” or terrorist or (violen* and extremis*))) and KW=(determinant* or antecedent* or predictor* or predictive or “risk factors” or vulnerability or resilience)))) not (KW=(al-qaeda or al qaeda or al qaida or al-qaida or muslim* or islam*))

Youth crime:
(Youth crime or juvenile crime) and (determinant* OR antecedent* OR predictor* OR predictive OR risk adj factors or vulnerability or resilience)

For the main REA question the following websites were searched:

Table 5 List of websites searched

Organisation	Website URL
AIVD (Netherlands)	https://www.aivd.nl/english/
Anser Institute for Homeland Security	http://www.homelandsecurity.org/Default.aspx?AspxAutoDetectCookieSupport=1
Brookings Institution Foreign Policy Studies	http://www.brookings.edu/search.aspx?doQuery=1&q=terrorism+inmeta:bi_program~Foreign%20Policy
Canadian Security Intelligence Service (CSIS)	http://www.csis-scrs.gc.ca/
Centre for Defence and International Security Studies	http://www.cdiss.org/default.aspx?fa=publicationlist&search=&author=&year=&keywords=terrorism
Centre for European Policy Studies	http://www.ceps.be/
Centre for the Study of Terrorism and Political Violence	http://www.standrews.ac.uk/~cstpv/publications/publications.html
CIA Library	https://www.cia.gov/library/intelligence-literature/index.html#war
Clingendael – Netherlands Institute for International Relations	http://www.clingendael.nl/
Council of Europe	http://www.coe.int/t/dc/av/default_EN.asp
Council on Foreign Relations	http://www.cfr.org/
Danish Institute for International Studies	http://www.diis.dk/sw152.asp
Egmont Institute	http://www.egmontinstitute.be/
Emergency Response and Research Institute (ERRI) Counter-Terrorism Archive	http://rs6.loc.gov/911/catalog/0689.html
Foundation for Defence of Democracies – Centre for Terrorism Research	http://www.defenddemocracy.org/index.php?option=com_content&view=article&id=515778:center-for-terrorism-research&catid=61:projects-and-partners&Itemid=343
General Accounting Office	http://www.gao.gov/docsearch/featured/terrorism.html
German Institute for international and Security Affairs	http://www.swp-berlin.org/en/

Table 5 continued List of websites searched

Hudson Institute	http://hudson.org/
International Crisis Group	http://www.crisisgroup.org/home/
National Memorial Institute for the Prevention of Terrorism	http://www.mipt.org
Norwegian Defence Research Establishment	http://www.mil.no/felles/ffi/english/start/;jsessionid=NUA1NO4IYQMKHQFIZYGSFEQ?_requestid=71349
RAND Institute	http://www.rand.org/research_areas/terrorism/
Terrorism Research Centre	http://www.terrorism.com/error.php?op=404
The Washington Institute for Near East Policy	http://www.washingtoninstitute.org/templateI01.php
US Department of State: Office of the Coordinator for Counterterrorism	http://www.state.gov/s/ct
US Library of Congress	http://www.loc.gov/rr/international/hispanic/terrorism/terrorism.html links

The following journals were hand-searched for the last ten years of publication:

- *Terrorism and Political Violence* (Taylor and Francis, Philadelphia)
- *Studies in Conflict & Terrorism* (Taylor and Francis, Philadelphia)

In addition, Dr Peter Neumann supplied two then-unpublished non-systematic reviews of the literature. The reference lists of these two reviews were scanned to locate further references.

Once screening was complete, 'pearl growing' methods were used to locate further references: the reference lists of all included studies were scanned to identify additional references; and ISI Web of Knowledge was used to find other research reports that cited the included studies.

7.2 Screening

All references were screened initially on abstract. Where the abstract met the criteria, or where it was unclear from the abstract whether the study met the criteria, the full text of the article was retrieved and re-screened with the same criteria. Screening of an initial sample of 10 per cent of the studies was conducted by all members of the review team to ensure reliability; once adequate agreement was achieved, each reference was screened by one reviewer only. The inclusion criteria were applied sequentially (i.e., 1 then 2 then 3 then 4) and were as follows:

1 Main question: Does the study relate to Al Qa'ida (AQ) or (an) AQ-influenced group(s)? (An AQ-influenced group was defined broadly as any non-state group with a commitment to armed violence and an Islamic ideology), or to one or more of the supplementary topics (animal rights extremism, cults, gangs, right-wing extremism, other forms of terrorism, or youth crime)?
2 Does the study present primary empirical data (either qualitative or quantitative) on individuals' behaviour, or a systematic review of such data?
3 Does the study describe either factors that make individuals more or less likely to engage in violent extremism or indicators that an individual is becoming involved in violent extremism? The study must relate to actual involvement with a violent extremist group (although not necessarily to involvement in committing violence), or with violent youth crime, not only to attitudes to violent extremism.
4 Was the study published in 1999 or later?

Studies were not excluded on the basis of language of publication. Any studies in non-English languages were retrieved and coded by a reviewer fluent in the language of publication. However, where the same research was reported in both English and non-English language sources (i.e., two study reports in different languages were 'linked'), only the English language report was coded.

7.3 Quality assessment

All studies included in the review were appraised using a quality assessment (QA) tool. The tool was developed in consultation with the Home Office's Office for Security and Counter-Terrorism (OSCT) and covered a range of dimensions of study and reporting quality: aims and study design; methodology; sampling and recruitment; ethics; data collection; data analysis; findings; and relevance and generalisability. The following questions were used for appraisal.

- Is there a clear statement of the aims of the research?
  - –Do the study authors clearly specify the aims of the study?
  - – Do the study authors clearly specify the research questions to be addressed?
- Is the research method employed appropriate for the research question?
  - – Do the study authors discuss or state an explicit justification for the methodology employed?
  - – In the reviewer's judgement, how robust is the design and methodology adopted for the study?
- Is the sampling and recruitment strategy rigorous and robust?
  - – Do the study authors describe how they sampled and recruited cases?
  - – Do the study authors state how many individuals were in the final sample?
  - – Do the study authors report any socio-demographic data on the individuals from whom data was collected?
  - – Do the study authors provide details of response rates?
- Have ethical issues been taken into consideration?
  - – Do the study authors discuss informed consent, confidentiality or potential effects on participants?
- Are the methods of data collection rigorous and robust?
  - – Do the study authors clearly describe how they collected data (for example, focus groups, semi-structured interview)?
  - – Is the form of data collection clearly described (for example, recordings, transcriptions)?
  - – Do the study authors justify methods chosen?
- Was data analysis sufficiently rigorous and robust?
  - – Do the study authors describe how they analysed data (themes/hypothesis testing)?
  - – Are potential biases and influence attributed or accounted for?
- Is there a clear statement of findings?
  - – Are sufficient data reported to support the research findings?
  - – Do the findings address the original aims or research questions?
  - – Do the researchers discuss credibility of findings (for example, triangulation, respondent validation)?
  - – Are the findings appropriately caveated, or is there an appreciation of the limitations?
- Are the findings relevant to this REA?
  - – Taking into account the sample and the data collected, to what extent are the findings likely to be generalisable to other contexts?

Each of the eight dimensions was scored 0 (poor), 1 (average) or 2 (good). The final question about relevance of the study to this REA was used as an initial filter, with all studies scoring 0 defined as low priority and excluded from the main report. The scores for the remaining seven questions were combined into one quality score. The tool was completed independently by two reviewers for a randomly selected sample of 10 per cent of records. The results of the quality assessment are presented in Tables 6 and 7.

The review team used a 'best evidence' approach to select literature for final inclusion through a two stage process:

- those studies that were rated 0 on relevance were excluded;
- those studies that scored less than 7 out of 14 (or below 6 out of 12 for studies where the ethical consideration was not relevant) on the criteria on the QA tool were excluded.

A zero score on relevance was determined by the generalisability of the study in question. This meant that those studies where findings reported just national determinants of violent behaviour were considered to be of zero relevance to individual motivation. For the remaining studies, relevance was based on how well the study related to AQ-influenced violent extremism in the UK. A summary table of excluded items and the specific reason for exclusion at the quality appraisal stage is reported in Tables 8 and 9. Therefore, the data in this review are reflective of the highest quality studies available that were relevant to this review.

Studies that scored ten or more were classed as high quality and studies that scored nine or less were classed as medium quality.

Table 6 Quality assessment of studies included in main REA

Study	Overall rating	Country of study	Study methods
Alonso, 2010	High	Spain	Interview/secondary
Alonso & Reinares, 2006	High	Spain	Interview/secondary
Amjad, 2009	High	Pakistan	Random Control Trial
Araj, 2008	High	Israel/Palestine	Interview/secondary
Asal *et al*., 2008	High	Pakistan	Survey
Bakker, 2006	High	Europe	Secondary
Change Institute, 2008	High	Denmark/France/ Germany	Interviews
Fair, 2008	High	Pakistan	Survey
Lyall, 2009	High	Chechnya	Controlled observational study
Neumann & Rogers, 2007	High	France/Spain//UK	Interviews
Quiggin, 2010	High	UK	Secondary
Sageman, 2004	High	Multiple	Secondary
Schbley, 2000	High	Lebanon/US	Survey
Schbley, 2003	High	Lebanon	Survey
Slootman & Tillie, 2006	High	Netherlands	Interviews/secondary
Smith, 2004	High	Multiple	Secondary
Speckhard, 2006	High	Chechnya	Interviews
Stern, 2004	High	Multiple	Interviews
Trujillo *et al*., 2009	High	Spain	Survey
Wiktorowicz, 2005	High	UK	Interviews/observational
Yom & Saleh, 2004	High	Israel/Palestine	Secondary
Beg & Bokhari, 2009	Medium	Pakistan	Interviews
Groen & Kranenberg, 2006	Medium	Netherlands	Secondary
Gupta, 2005	Medium	Multiple	Secondary
Hegghammer, 2006	Medium	Saudi Arabia	Interview/ secondary
Jacques & Taylor, 2008	Medium	Unclear	Secondary
Jensen, 2006	Medium	Denmark	Secondary
Jordán *et al*., 2008	Medium	Spain	Interview/secondary
Merari, 2005	Medium	Multiple	Interview/secondary
Nesser, 2004	Medium	Europe	Secondary
Nesser, 2010	Medium	Europe	Secondary
Pape, 2006	Medium	Multiple	Secondary
Pedahzur & Perliger, 2006	Medium	Israel/Palestine	Secondary
Pedahzur *et al*., 2003	Medium	Israel/Palestine	Secondary
Post *et al*., 2003	Medium	Multiple	Interview
Sageman, 2008	Medium	Multiple	Secondary
Silber & Bhatt, 2007	Medium	Multiple	Interviews
Weinberg *et al*., 2003	Medium	Israel/Palestine	Secondary
Wiktorowicz, 2004	Medium	UK	Observational

Table 7 Quality assessment of studies included in supplementary literature

	Study	Overall rating	Country of study	Study methods
Terrorism (General)	Borum, 2004	Medium	Unclear	Systematic review
	Smith & Damphousse, 2001	Medium	US	Secondary
Right-wing political activism	Blazak, 2001	High	Multiple	Interviews
	Blee, 2003	High	US	Interviews/observational
	Bjørgo, 2009	Medium	Multiple	Interviews
	Martín *et al*., 2009	High	Spain	Interviews
Gangs	Griffin & Hepburn, 2006	High	US	Secondary
	Hill *et al*., 1999	High	US	Survey/ interviews
	Vowell & May, 2007	High	US	Survey
Animal rights Activism	Lalich, 2004	High	US	Interviews
Cults	Gaarder, 2008	Medium	US	Interviews
Youth crime	Banyard *et al*., 2006	High	US	Secondary
	Baskin-Sommers & Sommers, 2006	High	US	Interviews
	Becker *et al*., 2004	High	US	Survey
	Beyers *et al*., 2001	High	US	Survey
	Blum *et al*., 2003	High	US	Survey
	Brezina, 2008	High	US	Secondary
	Case & Haines, 2007	High	UK	Survey
	Christoffersen *et al*., 2003	High	Denmark	Secondary
	De Coster *et al*., 2006	High	US	Secondary
	Desmond & Kubrin, 2009	High	US	Secondary
	Edens *et al*., 2006	High	Multiple	Systematic review
	Elonheimo *et al*., 2007	High	Finland	Secondary
	Fergusson & Horwood, 2000	High	New Zealand	Secondary
	Fergusson *et al*., 2002	High	New Zealand	Secondary
	Greco & Grattagliano, 2009	High	Italy	Survey
	Herrera & McCloskey, 2001	High	US	Survey
	Herrera & McCloskey, 2003	High	US	Survey
	Hoeve *et al*., 2008	High	US	Survey
	Hosser *et al*., 2007	High	Germany	Survey
	Johnson *et al*., 2008	High	US	Survey
	Kjelsberg, 2002	High	Norway	Survey
	Kuhns, 2005	High	US	Secondary
	Lansford *et al*., 2007	High	US	Secondary
	Lennings *et al*., 2003	High	Australia	Survey
	Lim & Chang, 2009	High	Singapore	Survey
	Lindberg *et al*., 2009	High	Finland	Secondary
	Martín *et al*., 2009	High	Spain	Interviews
	Mclaughlin *et al*., 2000	High	US	Secondary
	Moffitt *et al*., 2002	High	New Zealand	Survey
	Morash & Moon, 2007	High	South Korea	Survey
	Nofziger, 2001	High	US	Secondary
	Piquero *et al*., 2005	High	US	Survey
	Sauvola *et al*., 2002	High	Finland	Secondary
	Sourander *et al*., 2006	High	Finland	Secondary
	Thurnherr *et al*., 2008	High	Switzerland	Survey
	Vaughn *et al*., 2008	High	US	Survey

Table 7 continued Quality assessment of studies included in supplementary literature

	Study	Overall rating	Country of study	Study methods
Youth crime continued	Wadsworth, 2006	High	US	Secondary
	Zagar *et al*., 2009	High	US	Secondary
	Fittkau & Graser, 2008	Medium	Germany	Secondary
	Hawkins *et al*., 2000	Medium	NA	Systematic review
	Nieuwbeerta & van der Laan, 2006	Medium	Netherlands	Secondary

Table 8 presents the 19 studies that have been sorted as 'low priority' items for the main REA, based on the low relevance of the study and/or the low quality of the study, as measured by the QA tool.

Studies that were considered low relevance focused on national level data (for example, economic conditions, poverty, democracy and state repression) relating to AQ-influenced terrorism, or did not focus specifically on AQ-influenced terrorism. The data presented in these studies have peripheral relevance to the research review questions that focus on individual and group-level vulnerability and resilience factors that lead to AQ-influenced violent extremism.

Table 8 Low priority items based on quality or relevance scores: Main REA

Study	Topic
Berrebi, 2007	The link between education, poverty and terrorism among Palestinians
Björkman, 2010	Salafi-Jihadi terrorism in Italy
Blomberg *et al*., 2004	Economic conditions and terrorism
Hafez, 2006	Rationality, culture, and structure in the making of suicide bombers
Jordán & Horsburgh, 2005	Mapping jihadist terrorism in Spain
Krueger & Malečková, 2003	Education, poverty and terrorism: Is there a causal connection?
Lai, 2007	'Draining the swamp': An empirical examination of the production of international terrorism, 1968–1998
Marret, 2010	The jihadists and anti-terrorist challenges in France: an overview
Nesser, 2006	Jihadism in Western Europe after the invasion of Iraq
O'Duffy 2008	Radical atmosphere: Explaining jihadist radicalization in the UK
Piazza, 2006	Terrorism, poor economic development, and social cleavages
Piazza, 2007	Draining the swamp: Democracy promotion, state failure, and terrorism in 19 Middle Eastern countries
Post, 2005	The socio-cultural underpinnings of terrorist psychology – when hatred is bred in the bone. In *Root causes of terrorism: Myths, reality and ways forward*, Bjørgo, T. (ed)
Sageman, 2006	Islam and al Qaeda. In *Root causes of suicide terrorism: The globalization of martyrdom*, Pedahzur, A. (ed)[suggest insert to match previous entry]
Santos Bravo & Mendes Dias, 2006	An empirical analysis of terrorism: deprivation, Islamism and geopolitical factors
Schbley, 2006	Toward a common profile of religious terrorism
Speckhard & Akhmedova, 2005	Talking to terrorists
Testas, 2004	Determinants of terrorism in the Muslim world: An empirical cross-sectional analysis
Weinberg *et al*., 2008	The cost of terrorism: The relationship between international terrorism and democratic governance

Table 9 presents the 16 studies that have been sorted as 'low priority' items for the supplementary evidence review, based on the low relevance of the study or the low quality of the study, as measured by the QA tool.

Studies were considered low relevance if they had little transferability to the main research questions of this review, based on the topic being examined. Consistent with the low priority items for the main

research questions, those studies that focused on national-level data (for example, economic conditions, poverty, democracy and state repression) were also considered low priority. Therefore, the data presented in these studies have peripheral relevance to the research review questions that focus on individual and group-level vulnerability and resilience factors that lead to AQ-influenced violent extremism.

Table 9 Low priority items based on quality or relevance scores: Supplementary literature

Reference	Topic
Arseneault *et al.*, 2000	Minor physical anomalies and family adversity as risk factors for violent delinquency in adolescence
Della Porta, 2009	Leaving underground organisations: a sociological analysis of the Italian case
Falk & Zweimüller, 2005	Unemployment and right-wing extremist crime
Ganier, 2009	Does money matter? Terrorism and income distribution
Gatti *et al.*, 2003	Civic community and juvenile delinquency: A study of the regions of Italy
Goethals & Van Marle, 2009	Circumstantial risks in psychotic offenders and their criminal history: A review of the literature
Khan and Cooke, 2008	Risk factors for severe inter-sibling violence: A preliminary study of a youth forensic sample
Kpangban *et al.*, 2008	The menace of secret cults in higher educational institutions in Nigeria
Kubrin and Wadsworth, 2003	Identifying the structural correlates of African-American killings: What can we learn from data disaggregation?
Kyriacou *et al.*, 1999	The relationship between socioeconomic factors and gang violence in the city of Los Angeles
Lacourse *et al.*, 2003	Developmental trajectories of boys' delinquent group membership and facilitation of violent behaviours during adolescence
Lifton, 1999	Destroying the world to save it
Miranda and Claes, 2004	Rap music genres and deviant behaviors in French-Canadian adolescents
Piazza, 2006	Rooted in poverty?: Terrorism, poor economic development, and social cleavages
Reed *et al.*, 2008	Social and environmental contexts of adolescent and young adult male perpetrators of intimate partner violence: A qualitative study
Sherley, 2007	Examining country risk of international terrorism: A cross-national analysis of macro-level vulnerabilities

7.4 Data extraction

The tool used for data extraction included:

- details of the study methodology and aims of the study;
- the population and context of the study;
- the outcomes investigated;
- the findings of the study; and
- any limitations identified by the study authors.

As with screening and QA, an initial sample of 10 per cent of the references was data-extracted by all reviewers and discrepancies resolved by discussion. Once agreement was achieved, each reference was data-extracted by one reviewer only. An example of the data extraction form is provided in Table 10.

Table 10 Examples of data extraction

Unique ID	First author	Date	Funding source	Methods (detailed)	Country/ies	Group/s investigated	Other info on study participants	Aims of study/ research question	Outcome/indicator studied	Findings: vulnerability	Findings: resilience	Authors' conclusions / implications	Limitations (stated by authors)	Reviewer's notes	Social Factors	Psychological factors	Situational factors
118	Amjad	2009	The Higher Education Commission of Pakistan and the Anne Marie Schimmal scholarship	Study 1: Closed-question survey analysed with logistic regression. Detailed methods pp 515-516. Study 2: Random Control Trial of educational intervention to change beliefs about aggression towards Jews.	Pakistan	N/A. Study investigates attitudes to joining a group that does not actually exist, but was made up for the purposes of the study. "The purpose of the group was described as defending Muslim identity and honor, by opposing and fighting enemies of Islam such as Jews" (p 516).	80 female, 64 male; all Muslim; all post-graduate students. Information on relation to group N/A (see column to left)	To test whether normative beliefs predict joining an aggressive anti-Semitic group; to evaluate a brief intervention to lower willingness to join the extremist group	Intention to join	Normative beliefs approving of anti-Jewish behaviour increased likelihood that individuals would join or request more information on the extremist group (p 516). Males were (non-significant) more likely to join/request info (p 516).	An intervention consisting of a lecture on Jewish-Muslim relations greatly decreased the likelihood of individuals joining the extremist group ($p < 0.001$).	Magnitude of effect size in Study 2 suggests that beliefs were not strongly held; Study 1 findings indicate that they are strong predictors of willingness to join group. Authors suggest that this may explain why individuals join extremist groups on the basis of weakly-held beliefs.	Short (three-day) follow-up period – unclear how far findings reflect long-term attitudes.	Description of putative group and its beliefs is very brief. Questionable to what extent findings may be generalisable to groups with a stronger commitment to violence?		X	

Table 10 continued Examples of data extraction

Unique ID	First author	Date	Funding source	Methods (detailed)	Country/ies	Group(s) investigated	Other info on study participants	Aims of study / research question	Outcome /indicator studied	Findings: vulnerability	Findings: resilience	Authors' conclusions / implications	Limitations (stated by authors)	Reviewer's notes	Social Factors	Psychological factors	Situational factors
109	Araj	2008	Social Sciences and Humanities Research Council of Canada	In-depth interviews; secondary analysis of violent events database; analysis of other materials (news-papers, opinion polls ...)	Israel, Palestine	Palestinian suicide bombers	45 senior leaders of the most influential Palestini political organis-ations; 43 close relatives and friends of suicide bombers.	To study whether Israeli repression significantly affects Palestinian suicide bombing and if so, how.	Suicide bombing	**Macro-level:** Change in Israeli repression tactics led to increased support for suicide bombings (while strategic goals of Palestinian activists remained stable). **Mezo-level**: Harsh repression policies are a major factor behind the organisational decision to adopt suicide bombing. Secular organisations tend to see it as an extreme reaction against repression, whereas for religious organisations it is both a reaction and a strategy. **Micro-level:** At the individual level, most suicide bombers explained their decision in terms of 'vengeance'. In 32 of 43 cases, the bombers approached the organisation with the initiative. (More figures available on p 290 onwards.)		Harsh Israeli repression led to increased support for, and use of, suicide bombings.	Need to compare with cases in which harsh repression didn't lead to suicide bombings.	Post-hoc attribution of motivations for suicide bombing is debatable.		X	

7.5 Data synthesis

The data were categorised using the following four categories

- Social factors – who becomes involved?
- Psychological factors – why do they become involved?
- Physical and situational factors – how do they become involved?
- Resilience – what stops people becoming involved?

These categories were not mutually exclusive; many studies presented data in more than one category.

8. Appendix B: Flow of literature through the review

For the main questions on Al Qa'ida (AQ)-influenced terrorism, the searches of research databases, carried out in December 2009, located a total of 1,166 records, of which 911 were unique (non-duplicate) records. Of these, 888 were excluded for being irrelevant after analysis of their abstracts and 23 were included for full text screening (this increased to 33 after single citations that were books were found to have multiple relevant chapters by different authors. Each chapter was subsequently listed as a unique item of data). A total of 49 further references located through other means (including suggestions from the review team's expert adviser and peer reviewers, hand-searching of websites and journals, and 'citation chasing' – looking for additional studies identified in the reference list of included studies, and identifying other studies that cited the included studies) were also included for full text screening. Of these 82 references, 21 were subsequently excluded and 3 unpublished conference papers could not be located. Hence, 58 studies were assessed in detail, of which 19 were considered to be of low methodological quality or low relevance to AQ-influenced violent extremism in Western societies, and were not included in the review for the main question.

For the supplementary evidence, searches of research databases carried out in March 2010 located a total of 2,857 references, of which 2,111 were unique records. Of these, 1,989 were excluded after evaluation of their abstract, 17 were irretrievable (mainly unpublished conference papers), 39 were excluded after analysis of the full text, and 16 were considered to be of low quality or relevance to participation in violent extremism in Western societies and were therefore not included in the review. Peer reviewers suggested one additional study that met the inclusion and quality criteria, resulting in 51 high priority studies that were included in the final report.

Figure 2: Flow of literature – REA on AQ-influenced violent extremism literature

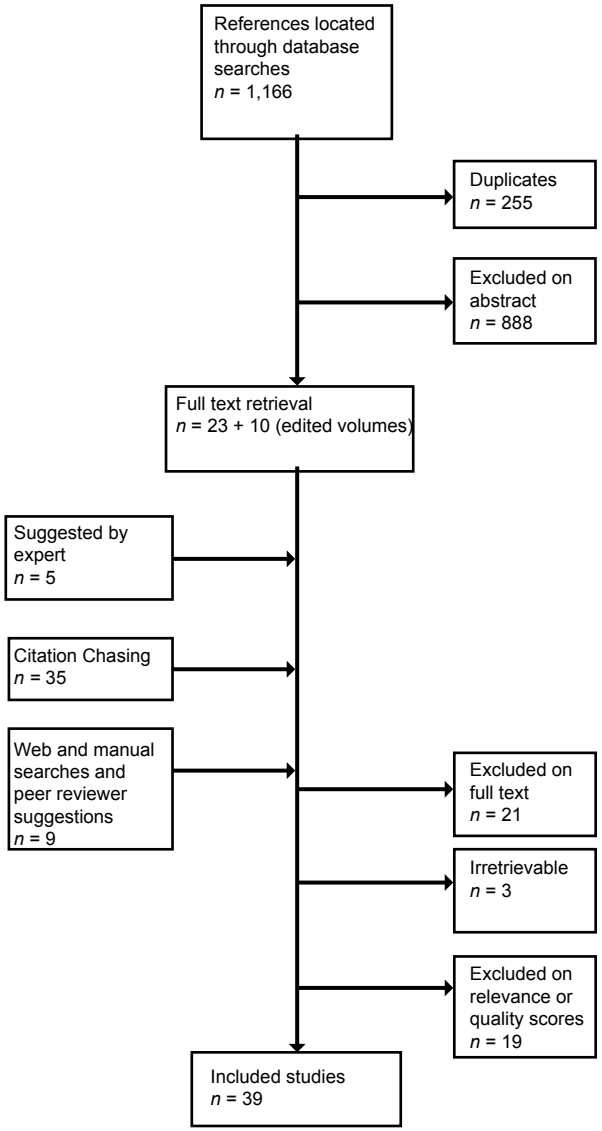
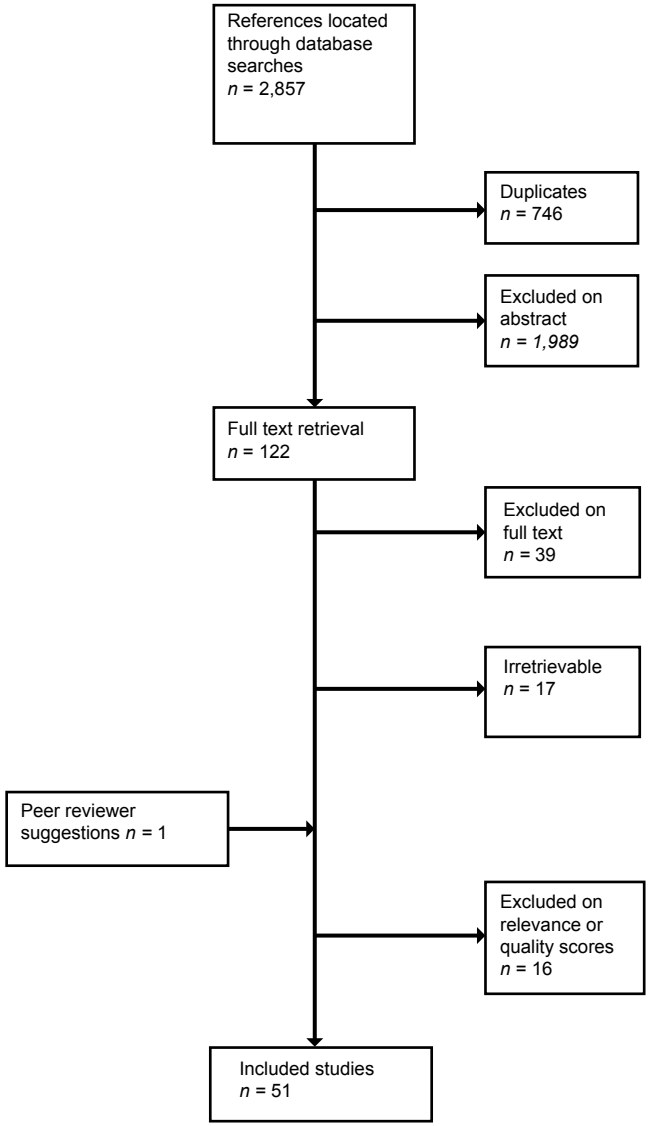


Figure 3: Flow of literature – REA on other types of violent activity



9. Appendix C: Details of included studies

9.1 Summary of studies reporting on social factors: Who becomes involved?

Table 11 Characteristics of people associated with violent activities

	Al Qa'ida (AQ)-influenced	Supplementary evidence
Age	International: Mean 26 years Sageman, 2004 Europe/US: Mean age at arrest 27.3 years Bakker, 2006; 25 to 35 Jordán *et al.*, 2008 Chechnya: Mean age 24 years Speckhard, 2006 Palestine: Mean 22 years (16 to 53) Merari, 2005; Yom and Saleh, 2004 Lebanon: 13 to 27 years Schbley, 2003	
Gender	Europe/US: 237/242 (98%) male, 5/242 (2%) female Bakker, 2006; Nesser, 2004 Chechnya: 48/112 (43%) of terrorists were women; 64/112 (57%) were men Speckhard, 2006 Palestine: Males predominantly involved Merari, 2005; Pedahzur *et al.*, 2003; Weinberg *et al.*, 2003; Yom and Saleh, 2004 but Women increasingly becoming involved Merari, 2005	Terrorism: Women increasingly involved in left-wing groups and Tamil Tigers Merari, 2005
Racial groups/ ethnicity/ nationality	Europe/US: Most families originally from Algeria, Morocco or Pakistan but very diverse range of countries Bakker, 2006 32/45 (71%) Moroccan, 6/45 (13%) Syrian, 5/45 (11%) Algerian, 1/45 (2%) Egyptian, 1/45 (2%) Tunisian Jordán *et al.*, 2008 56/146 (38%) are 2nd- or 3rd-generation migrants (raised in Europe) Bakker, 2006 83% have residence permits, 11% are nationalised, 4% have irregular immigration status Jordán *et al.*, 2008 Arabian peninsula: Riyadh over-represented. Socially or religiously conservative areas not over-represented Hegghammer, 2006	Right wing: 97% White Blazak, 2001; Blee, 2003; Smith and Damphousse, 2001 Youth crime: African American, Native American, Hispanic Desmond and Kubrin, 2009 African American, Latino De Coster *et al.*, 2006 African American Piquero *et al.*, 2005 Non-White Johnson *et al.*, 2008 African American Vaughn *et al.*, 2008 Association with race disappeared after adjusting for parenting styles Hoeve *et al.*, 2008

Table 12 Education, employment and economic status

	AQ-influenced	Supplementary evidence
Level of education	International: More than 60% college education; 9% higher degree Sageman, 2004 Europe/US: 42/48 (87%) completed secondary education; 15/48 (31%) university graduates Bakker, 2006 Arabian peninsula: Most high school education or less Hegghammer, 2006 Chechnya: 68% high school graduates, 6% college graduates, 18% university graduates, 9% still studying at college/university Speckhard, 2006 Palestine: 38% university graduates, 28% failed to complete high school Yom and Saleh, 2004	Terrorism: 47% college graduates Smith and Damphousse, 2001
Poor educational attainment of subject		Gangs: Positive association Hill *et al.*, 1999 Right wing: Positive association Martín *et al.*, 2009 . NO association Blee, 2003 Youth crime: Positive association Banyard *et al.*, 2006; Beyers *et al.*, 2001; Christoffersen *et al.*, 2003; Desmond and Kubrin, 2009; Johnson *et al.*, 2008; Lindberg *et al.*, 2009; Martín *et al.*, 2009
Poor educational attainment of parent		Youth crime: Positive association Christoffersen *et al.*, 2003; De Coster *et al.*, 2006
Socio-economic background	International: Three-quarters upper or middle class background; one-quarter unemployed Sageman, 2004 Europe/US: 3/72 (4%) 'upper class'; 30/72 (42%) 'middle class'; 39/72 (54%) 'lower class' Bakker, 2006 Lower classes Sageman, 2004 Same as other Muslim immigrants Jordán *et al.*, 2008 Arabian peninsula: Majority are middle- or lower-middle class Hegghammer, 2006 Chechnya: 6% 'poor' Socio economic status, 59% 'middle', 29% 'good', 6% 'high' Speckhard, 2006	Gangs: Perceived block in ability to reach potential Vowell and May, 2007 Youth crime: Positive association Nofziger, 2001

Table 12 continued Education, employment and economic status

	AQ-influenced	Supplementary evidence
Socio-economic background continued	Lebanon, Palestine: Typical of general population Merari,2005; Schbley, 2003; Weinberg *et al.*, 2003	

Table 13 Family background

	AQ-influenced	Supplementary evidence
Marital status	Europe/US: 39/66 (59%) had been married or engaged; 8/66 (12%) had been divorced; 22/66 (33%) single at time of attack. 25/66 (38%) had children Bakker, 2006 Chechnya: 53% single, 15% married, 12% divorced, 18% widowed, 3% second marriage Speckhard, 2006	
Single-parent family		Gangs: Positive association Hill *et al.*, 1999 Youth crime: Positive association Christoffersen *et al.*, 2003; Lindberg *et al.*, 2009; Nieuwbeerta and van der Laan, 2006; Sauvola *et al.*, 2002; Sourander *et al.*, 2006; Thurnherr *et al.*, 2008 Poor predictor Hawkins *et al.*, 2000
Lack of adult involvement when a child		Youth crime: Positive association Banyard *et al.*, 2006; Beyers *et al.*, 2001; Case and Haines, 2007; Christoffersen *et al.*, 2003
Harsh parenting/poor relationship with parents		Youth crime: Positive association Becker *et al.*, 2004; Case and Haines, 2007; Hoeve *et al.*, 2008; Kuhns, 2005;Thurnherr *et al.*, 2008
Parental drug/alcohol abuse		Youth crime: Positive association Christoffersen *et al.*, 2003; Kjelsberg, 2002

Table 14 Past criminal or violent activity / exposure to violence abuse

	AQ-influenced	Supplementary evidence
History of prior violence or crime by subject	Europe/US: 58/242 (24%) had criminal record Bakker, 2006 Arabian peninsula: "A handful" Hegghammer, 2006	Youth crime: Positive association Baskin-Sommers and Sommers, 2006; Becker *et al.*, 2004; Beyers *et al.*, 2001; De Coster *et al.*, 2006; Desmond and Kubrin, 2009; Hawkins *et al.*, 2000; Hoeve *et al.*, 2008; Hosser *et al.*, 2007; Kjelsberg, 2002; Kuhns, 2005; Moffitt *et al.*, 2002; Sourander *et al.*, 2006; Vaughn *et al.*, 2008; Zagar *et al.*, 2009
History of violence or trouble at school/ suspension		Youth crime: Positive association Case and Haines, 2007; Kjelsberg, 2002; Sourander *et al.*, 2006; Thurnherr *et al.*, 2008

Table 14 continued Past criminal or violent activity / exposure to violence abuse

History of physical abuse of subject or witnessing family violence, victimisation	Positive finding Araj, 2008; Beg and Bokhari, 2009; Speckhard, 2006 Weak association Merari, 2005	Gangs: Positive finding Griffin and Hepburn, 2006 Right wing: Unclear association Blee, 2003 Youth crime: NO, or weak association Hawkins *et al.*, 2000 Positive association Banyard *et al.*, 2006; Baskin-Sommers and Sommers, 2006; Becker *et al.*, 2004; Blum *et al.*, 2003; Christoffersen *et al.*, 2003; De Coster *et al.*, 2006; Herrera and McCloskey, 2001; Herrera and McCloskey, 2003; Hosser *et al.*, 2007; Kuhns, 2005; Lansford *et al.*, 2007; Morash and Moon, 2007; Thurnherr *et al.*, 2008
History of sexual abuse of subject		Gangs: Positive association Griffin and Hepburn, 2006 Right wing: Unclear association Blee, 2003 Youth crime: Positive association Banyard *et al.*, 2006; Herrera and McCloskey, 2003

9.2 Summary of studies reporting on psychological factors: Why do people become involved?

Table 15 Psychiatric or personality disorders

	AQ-influenced	Supplementary evidence
Psychiatric problems	11/242 (4%) had some mental illness Bakker, 2006 No increased rate Borum, 2004; Merari, 2005; Sageman, 2004	Gangs: Positive association Griffin and Hepburn, 2006 Hyperactivity Hill *et al.*, 1999 Terrorism: NO association Borum, 2004 Youth crime: Anxiety and adjustment disorders Elonheimo *et al.*, 2007 Depression Banyard *et al.*, 2006. Hyperactivity and conduct disorder Hawkins *et al.*, 2000; Sourander *et al.*, 2006; Vaughn *et al.*, 2008 Positive association Case and Haines, 2007; Thurnherr *et al.*, 2008
Personality/ personality disorders	Lebanon: oppositional defiant, impulse control disorder, antisocial behaviour common Schbley, 2003	Gangs: Externalising personality Hill *et al.*, 1999 Terrorism: NO association Borum, 2004 Youth crime: Psychopathic personality disorder Edens *et al.*, 2006; Lindberg *et al.*, 2009. Lack of guilt Beyers *et al.*, 2001 Antisocial personality disorder Moffitt *et al.*, 2002 Poor executive function Zagar *et al.*, 2009

Table 15 continued Psychiatric or personality disorders

	AQ-influenced	Supplementary evidence
Low self-esteem		Gangs: Positive association Griffin and Hepburn, 2006
Low self-control		Gangs: Positive association Hill *et al.*, 1999 Youth crime: Positive association Case and Haines, 2007; Kjelsberg, 2002; Nieuwbeerta and van der Laan, 2006; Piquero *et al.*, 2005
Risk-taking behaviour		Youth crime: Positive association Hawkins *et al.*, 2000
Alcohol and/or drug abuse by subject		Gangs: Positive association Griffin and Hepburn, 2006; Hill *et al.*, 1999 Youth crime: Positive association Banyard *et al.*, 2006; Baskin-Sommers and Sommers, 2006; Case and Haines, 2007; Fergusson and Horwood, 2000; Hawkins *et al.*, 2000; Hosser *et al.*, 2007; Kjelsberg, 2002; Kuhns, 2005; McLaughlin *et al.*, 2000; Vaughn *et al.*, 2008

Table 16 Religious beliefs / Intensification of religious beliefs

	AQ-influenced	Supplementary evidence
Religious beliefs	Positive association Beg and Bokhari, 2009; Change Institute, 2008; Hegghammer, 2006; Jacques and Taylor, 2008; Slootman and Tillie, 2006; Wiktorowicz, 2005	Gangs: NO association Hill *et al.*, 1999 Right wing: Positive association Blee, 2003
Religious upbringing	International: 23/137 (17%) educated in Islamic school Sageman, 2004 Europe/US: 14/50 (28%) converts; 11/50 (22%) raised in religious family; 25/50 (50%) family not religious Bakker, 2006. For 58/61 (95%), faith increased before recruitment Bakker, 2006 Religious background not strongly associated Hegghammer, 2006 Chechnya: 82% secular background, 18% traditional Muslim family Speckhard, 2006 Palestine: Mahgreb Arabs: likely to be educated in religious schools Pedahzur *et al.*, 2003;Weinberg *et al.*, 2003	
Intensification of religious beliefs	Positive association Alonso and Reinares, 2006; Alonso, 2010; Bakker, 2006; Neumann and Rogers, 2007; Sageman, 2004; Trujillo *et al.*, 2009; Wiktorowicz, 2004; Wiktorowicz, 2005	Cults: Positive finding Lalich, 2004 Right wing: Positive finding Blee, 2003

Table 17 Political ideology and grievances

	AQ-influenced	Supplementary evidence
Political ideology	Positive finding Araj, 2008; Change Institute, 2008; Hegghammer, 2006; Jensen, 2006; Nesser, 2004; Nesser, 2010; Pape, 2006; Pedahzur *et al.*, 2003; Quiggin, 2010; Silber and Bhatt, 2007; Slootman and Tillie, 2006; Stern, 2004 Political grievance necessary but not sufficient factor Gupta, 2005. Perception of group's values predicts who will become violent more than attitude to 'enemy' Smith, 2004 Political motives less important for women than personal motives Jacques and Taylor, 2008	
Actual or perceived socio-economic disadvantage/ poverty	Positive association Pedahzur *et al.*, 2003; Schbley, 2003; Silber and Bhatt, 2007	Right wing: Positive finding Blee, 2003; Martín *et al.*, 2009 Terrorism: Positive finding Borum, 2004
Actual or perceived socio-economic disadvantage/ poverty continued		Youth crime: Positive finding Beyers *et al.*, 2001; De Coster *et al.*, 2006; Desmond and Kubrin, 2009; Wadsworth, 2006; Zagar *et al.*, 2009
Reduced/decreasing opportunities or socio-economic status		Right wing: Positive association Blazak, 2001 NO association Blee, 2003 Terrorism: Positive finding Borum, 2004 Youth crime: Positive finding Christoffersen *et al.*, 2003
Community disadvantage		Youth crime: Positive finding Banyard *et al.*, 2006; Beyers *et al.*, 2001; De Coster *et al.*, 2006

Table 18 Discrimination, alienation or humiliation, and vengeance/retribution

	AQ-influenced	Supplementary evidence
Alienation from/rebellion against mainstream	Positive factor Silber and Bhatt, 2007	Animal rights: Positive finding Gaarder, 2008 Gangs: Positive finding Hill *et al.*, 1999 Right wing: Positive finding Bjørgo, 2009
Perceived or actual injustice, revenge	Positive finding Araj, 2008; Beg and Bokhari, 2009; Post, 2005; Speckhard, 2006 Vengeance for other Muslims in conflict zones Change Institute, 2008; Gupta, 2005; Stern, 2004; Wiktorowicz, 2004	Terrorism: Positive finding Borum, 2004

Table 18 continued Discrimination, alienation or humiliation, and vengeance/retribution

	AQ-influenced	Supplementary evidence
Provocation (or setting up 'provocation')		Right wing: Positive finding Bjørgo, 2009; Martín et al., 2009 Used as an excuse Blazak, 2001
Frustration/ anger/despair with life		Right wing: Positive finding Martín *et al.*, 2009
Opportunity to be violent/act on violent or antisocial beliefs		Gangs: Positive finding Hill *et al.*, 1999 Right wing: Positive finding Martín *et al.*, 2009 Youth crime: Positive finding Beyers *et al.*, 2001; Case and Haines, 2007; Hawkins *et al.*, 2000; Kuhns, 2005
Response to personal loss/grief – critical life event	Positive finding Araj, 2008; Post, 2005; Silber and Bhatt, 2007; Speckhard, 2006	Right wing: Positive finding Blee, 2003 Terrorism: Positive finding Borum, 2004 Youth crime: Parental divorce Sauvola et al., 2002 Positive finding Vaughn et al., 2008

Table 19 Material and other rewards

	AQ-influenced	Supplementary evidence
Financial rewards	Positive finding Stern, 2004	
Adding meaning to life		Animal rights: Positive association Gaarder, 2008 Right wing: Positive finding Blee, 2003
Pleasurable/thrill seeking		Animal rights: Positive association Gaarder, 2008 Right wing: Positive finding Bjørgo, 2009 Youth crime: Positive finding Thurnherr *et al.*, 2008
Personal gain (status, identity, success, power, autonomy)	Positive finding Beg and Bokhari, 2009; Gupta, 2005; Post *et al.*, 2003; Silber and Bhatt, 2007; Stern, 2004	Gangs: Positive finding Griffin and Hepburn, 2006; Lim and Chang, 2007 Right wing: Positive finding Bjørgo, 2009; Blee, 2003; Martín *et al.*, 2009 Terrorism: Positive finding Borum, 2002 Youth crime: Positive finding Brezina, 2008; Thurnherr *et al.*, 2008

9.3 Summary of studies reporting on physical and situational factors: How do people become involved?

Table 20 Social and group dynamics

	AQ-influenced	Supplementary evidence
Increasing socialisation into group/need to belong to group	Positive finding Alonso and Reinares, 2006; Bakker, 2006; Fair, 2008; Post *et al.*, 2003; Pedahzur and Perliger, 2006; Sageman, 2004; Sageman, 2008	Animal rights: Positive finding Gaarder, 2008 Right wing: Positive finding Bjørgo, 2009; Blazak, 2001; Blee, 2003 Terrorism: Positive finding Borum, 2004
Reduction of other social ties/attachments		Gangs: Positive finding Hill *et al.*, 1999 Right wing: Positive finding Bjørgo, 2009 Youth crime: Positive association Banyard *et al.*, 2006; Baskin-Sommers, 2006 NO association De Coster *et al.*, 2006
Family/friends also involved in violent behaviour	Positive finding Alonso and Reinares, 2006; Asal *et al.*, 2008; Bakker, 2006; Fair, 2008; Jordán *et al.*, 2008; Neumann and Rogers, 2007; Pedahzur and Perliger, 2006; Post *et al.*, 2003; Sageman, 2004; Sageman, 2008	Gangs: Positive finding Hill *et al.*, 1999 Right wing: Positive finding Bjørgo, 2009; Blazak, 2001; Blee, 2003 Terrorism: Positive finding Borum, 2004 Youth crime: Positive finding Beyers *et al.*, 2001; Case and Haines, 2007; Christoffersen *et al.*, 2003; De Coster *et al.*, 2006; Desmond and Kubrin, 2009; Fergusson *et al.*, 2002; Kuhns, 2005; Lindberg *et al.*, 2009
Charismatic leadership	Positive finding Alonso and Reinares, 2006; Neumann and Rogers, 2007; Pedahzur and Perliger, 2006 Not essential Bakker, 2006; Pedahzur and Perliger, 2006; Sageman, 2004; Sageman, 2008	Cults: Positive finding Lalich, 2004

Table 21 Social settings and spaces

	AQ-influenced	Supplementary evidence
Religious institutions	Mosques as safe meeting place or base for extremists Alonso and Reinares, 2006; Alonso, 2010; Fair, 2008; Jordán *et al.*, 2008; Neumann and Rogers, 2007; Post *et al.*, 2003; Sageman, 2004; Sageman, 2008	
Prisons	Site of radicalisation Alonso, 2010; Jordán *et al.*, 2008; Neumann and Rogers, 2007; Post *et al.*, 2003; Trujillo *et al.*, 2009	Right wing: Positive association Blazak, 2001; Blee, 2003
AQ training camps	Key operative training site Nesser, 2004 Not usually visited by AQ terrorists in West Jordán *et al.*, 2008	

9.4 Summary of evidence on factors associated with resilience to involvement in violent extremism

Table 22 Factors associated with resilience to violence

	AQ-influenced	Supplementary evidence
Education	Education about 'enemy' reduces likelihood of involvement in violence against them Amjad, 2009	Youth crime: High educational expectations reduces risk of participation Blum *et al.*, 2003
Increasing personal or family wealth	Reduces willingness to participate Asal *et al.*, 2008; Schbley, 2000	
Exposure to violence	Insurgent attacks less likely from bombed villages Lyall, 2009	

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