



# Counter-Radicalization Interventions: **A Review of the Evidence**

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# Summary

Counter-radicalization has become part and parcel of the counter-terrorism strategies of virtually every western nation. Representing a ‘soft approach,’ most counter-radicalization efforts are targeted at the primary level, in which policies, practices and programs (PPP) target the general population. The logic model underpinning the approach is that by targeting specific risk and protective factors, we can reduce the prevalence of radicalization among the general population, thereby reducing the risk of terrorism. Yet despite the rapid diffusion of counter-radicalization interventions, and the significant investment in them, there continues to be a dearth of evaluations. Even with some PPP in place for close to two decades, it remains unknown as to whether they are targeting appropriate risk and protective factors, and whether they are at all effective. The lack of evaluations has also left serious criticisms about iatrogenic effects unchallenged, and risk-benefit analyses impossible. Whilst some recent reviews have synthesized the effects of programs, these have been limited to studies of laboratory-based interventions, conducted on relatively small samples.

While there is no replacement for rigorous field evaluation and quantitative synthesis of intervention effects on radicalization outcomes, it is still possible to assess which interventions are most *likely* to be successful. This report details the results of a review of government funded or operated PPP as they pertain to primary-level counter radicalization in democratic countries. By drawing upon the results of a recent *Campbell Collaboration* systematic review and meta-analysis of risk and protective factors for radicalization, we are able to draw conclusions based on the known relationships between the mechanisms (risk and protective factors) and radicalization outcomes targeted by identified PPP. We find that most PPP target multiple factors, and that for the most part correctly target at least one factor that has a known, salient relationship with radicalization, which provides indications of likely success. However, the review also finds that some of the most important factors are infrequently targeted, whereas other frequently targeted factors carry significant risk of iatrogenic backfire effects.

# Introduction

Since the attacks on the United States of America (USA) on September 11<sup>th</sup>, 2001, the ‘war on terror’ has featured among the top priorities of virtually all western states. The initial stages of the war focused primarily on military interventions overseas, and the bolstering of hard security at home. However, in the years following, western states were witness to new developments in the terrorist threat. One development came in the form of so called ‘home-grown terrorists’, residents or citizens of a country who radicalized into terrorists and attacked domestically. Simultaneously, attention turned toward the threat from so called ‘lone wolf’ terrorism. While many lone wolf terrorists can also be said to be home-grown, they were considered to be an especially dangerous threat since they were more difficult to identify, lacking the type of infrastructure that leaves groups more vulnerable to intelligence efforts. Another emerging threat came in the form of foreign fighters, citizens who would travel to join groups such as Al-Qaeda and ISIS. There have been ongoing concerns that returning foreign fighters could pose a serious threat to their countries of origins (Bakker & De Graaf, 2011; Richards, 2020; Wolfowicz et al., 2020).

As these threats emerged and developed, so too did the perspectives and policy approaches of western countries. While in the earlier years there was more of a concern about the so called ‘root causes’ and ‘drivers’ of terrorism, more recent years gave rise to a new paradigm that focused on pathways and routes to terrorism (Horgan, 2008; Borum, 2011; Neumann & Kleinmann, 2013; Weisburd et al., In Press). As research and political perspective devoted more attention to this perspective, a new paradigm emerged that focused on radicalization. The European Commission (2005) provided one of the early operational definitions of radicalization as being “the phenomenon of people embracing opinions, views and ideas, which could lead to acts of terrorism.” While the EU did not specify what “opinions, views and ideas” it was referring to, a general consensus has emerged that considers positive evaluations of terrorism as representing radicalization. It is in line with this assumption that significant investment was made to develop strategies and interventions that would stymie or otherwise mitigate the development of radicalization in the

population. According to the logic model, lower levels of radicalization would lead to lower risk of terrorism.

However, the selection of which factors should be targeted in order to effectively counter radicalization has remained somewhat elusive. Some of the most commonly targeted factors pertain to social inclusion and assimilation, based on the view that radicalization is primarily an outcome of social alienation and a lack of identification with the state, society, and culture. However, by targeting such factors, counter-radicalization may inevitably single out certain communities or groups. Doing so may, in turn, lead to stigmatization and contribute to the very alienation that it seeks to combat. Additionally, it remains questionable whether such factors are even significantly related to radicalization at all (Pisoiu, 2012; Rahimi & Graumans, 2015). The selection of these or other factors for targeting by counter-radicalization has often been based more on local history, politics and culture rather than evidence (Hardy, 2018). In fact, the entire development and proliferation of the counter-radicalization paradigm preceded the emergence of an evidence-base concerning the risk factors for radicalization (Silva & Deflem, 2020).

Determining whether or not counter-radicalization strategies and interventions are having their intended effect remains one of the key objectives of researchers and policy makers. Unfortunately, evaluations, or the lack thereof, represent an existential gap in the body of knowledge. This despite multiple papers having produced guidance for carrying out evaluations (Baruch et al., 2018; Beaghley et al., 2017; Helmus et al., 2017). It remains the case that we simply do not know whether counter-radicalization interventions are achieving their desired goals (Koehler, 2019).

In the absence of evaluation studies, and with multiple, competing perspectives being adopted, a first step would be to examine the degree to which targeted risk and protective factors are evidence-based. Such an exercise is now made possible due to a recent large scale systematic review and meta-analysis of risk factors for radicalization – we now have quantitative estimates of the effects of some 100 risk and protective factors (Wolfowicz et al., 2021). We believe that by identifying the factors that counter-radicalization programs target and identifying the degree to which those factors are evidence-based, it may be possible to draw assumptions as to which interventions may be the most promising. Similarly, for the few evaluations that do exist, demonstrations of significant (or non-significant) effects on risk and protective factors can give an indication as to the promise of those interventions when considering the relative magnitude of the relationship between those factors and radicalization outcomes.

In this study, we review government counter-radicalization strategies and interventions funded by government or carried out under their auspices. We map out the risk and protective factors specified in the respective strategies

and interventions and identify the degree to which they are evidence-based. We find that most strategies and interventions are targeting multiple factors, which should be considered to be positive and promising given the cumulative and interactive effects that exist with risk and protective factors (Hirschfield et al., 2012). However, our review also indicates that many strategies and interventions are also targeting factors with exceptionally small and nearly inconsequential relationships with radicalization. Additionally, with the exception of tolerance, some of the factors with the largest relationships with radicalization are infrequently targeted, and others not at all. Finally, some of the most commonly targeted factors, such as integration, are known to carry the risk of iatrogenic effects.

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# Defining radicalization

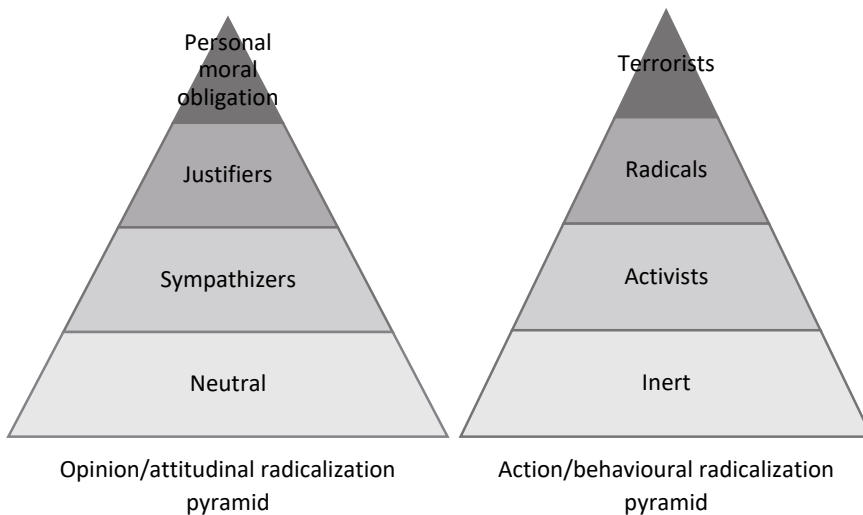
There are certainly many different definitions and models of radicalization, and it is beyond the scope of this report to provide an in-depth review of the competing perspectives. As indicated by its etymology, radicalization inherently indicates something that deviates from the norm (Adam-Troian, 2021). For some, this may refer to embracing anti-democratic ideas, or values that are in staunch opposition to those of mainstream society. And whilst technically speaking these may be radical attitudes, radicalization is more commonly referred to as a source of concern due to its perceived linkage or relationship to terrorism, where the former represents some sort of antecedent to the latter (Wolfowicz et al., 2021).

If this is the case, and radicalization represents some sort of attitudinal or cognitive antecedent that could potentially lead to a behavioral outcome of concern such as terrorism, then a good definition of radicalization ought to demonstrate a high level of correlation with terrorism. Indeed, there is a growing consensus that however radicalization is defined, it ought to include some general support, justification, or positive evaluation of terrorism. Common approaches to radicalization by researchers and policy makers alike therefore make the ever-important distinction between the cognitive and behavioral outcomes of radicalization. Irrespective of which approach is taken, the same basic understandings persist. First, the majority of a population eschews the use of violence for ideological, political, or religious reasons (Adam-Troian, 2021). Thereby, those that support, justify, or hold positive evaluations of such violence hold radical attitudes. Second, while there are some exceptions, for someone to engage in an act of radical violence, they would first have to have embraced or held such attitudes (Moskalenko & McCauley, 2020). Third, despite this being the case, it is exceptionally rare for anyone who holds radical attitudes to even engage in radical violence. That is, the overwhelming majority of those who justify terrorism will never actually engage in it (McCauley & Moskalenko, 2017).

These basic premises underpin a number of models and typologies of outcomes of radicalization (e.g., Khalil, Horgan, & Zeuthen, 2019; McCauley &

Moskalenko, 2017). Arguably the most well-known is the widely referred to Two-Pyramid Model of radicalization. As depicted below in Figure 1, the model differentiates between opinions and actions, or attitudes and behaviors. The narrowing shape of the pyramids does not denote a pathway to radicalization but rather represents a typology, with the size of a given population who fall into each category being smaller at each level. One of the utilities of this model is that it differentiates the general population from the radical population – those who sympathize, justify, or have a sense of personal moral obligation toward terrorism. The majority of these radicals will remain forever inert on the action pyramid. The model does not specify which factors may determine when an individual may move from being neutral to any other level on the opinion pyramid, or from being inert to any other level on the action pyramid. And it may very well be that there are different risk factors for cognitive and behavioral radicalization, or for some factors, there may be significant differences in their effects for these outcomes (Wolfowicz et al., 2021). As such, these typologies can be used to guide the targeting of strategies at the correct levels.

**Figure 1: McCauley & Moskalenko's (2017) Two-Pyramid Model**

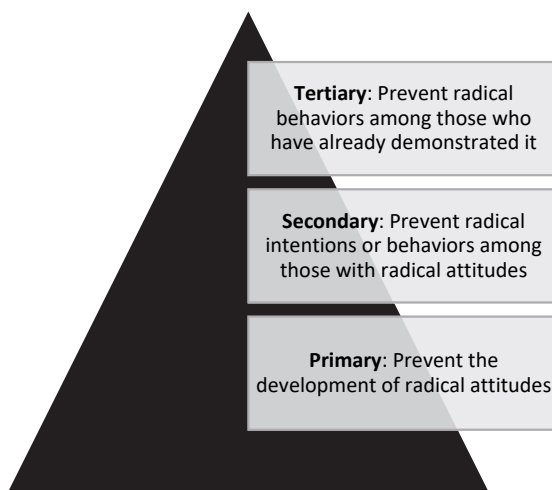


# Counter-radicalization: The primary level

It is from this point of departure that the counter-radicalization paradigm emerges, which treats the prevention of radicalization as a key component of counter-terrorism. The field of counter-radicalization is viewed as equally important as counter-terrorism (Heydemann, 2014). In a sense, counter-radicalization represents a ‘soft’ approach to combatting terrorism, compared to the ‘hard’ tactics of counter-terrorism itself (Aldrich, 2012, 2014). Reflecting the different levels of radicalization, counter-radicalization has often taken the form of a public-health model approach, with interventions being applied at the primary, secondary and tertiary levels. Primary level interventions target the whole of society, whereas secondary level interventions target specific sub-sects of society, or specific individuals or groups of individuals considered to be at risk for radicalization. Tertiary interventions target offenders and seek to reduce the likelihood of recidivism (Weine et al., 2017; National Academy of Sciences, 2017; Wolfowicz et al., 2020; Wolfowicz et al., 2021). This general approach is explicitly mentioned in the counter-radicalization strategies of countries such as the UK (HM Government, 2018), whereas for others it is implicit.

According to this approach, and with reference to the Two-Pyramid Model, primary level interventions are aimed at preventing members of the general population from moving up the cognitive radicalization pyramid. Interventions at this level often take the form of general social and educational programming and are implemented through multi-agency cooperation, often in conjunction with local stakeholders.

**Figure 2: Public health model in counter violent extremism (CVE)**



The literature on counter-radicalization highlights the primary level, which most closely reflects the ideas of anti or counter-radicalization, whereas the other levels are more reflective of de-radicalization and desistance. For example, in Australia, primary level interventions account for 87% of initiatives (Harris-Hogan, Bareille & Zammitt, 2016). However, despite this, much more information appears to be available on secondary level interventions (e.g., Cherney & Belton, 2021). This has been explained as being in part due to the various challenges that exist with evaluating primary level interventions, and the relative ease with which outcomes of targeted, secondary level interventions can be assessed. While some recent reviews have combined primary and secondary level interventions, this can potentially give rise to misleading results, as most of the data pertain to secondary level, but conclusions are made as being relevant to the primary level. This can be detrimental given there is already an existing tendency to incorrectly conflate counter-radicalization with desistance or disengagement, and targeted prevention work. There are more than just the conceptual and practical differences between primary, secondary and tertiary levels. The risk factors for the outcomes relevant to these levels may also be different, or at the least have differential effects.

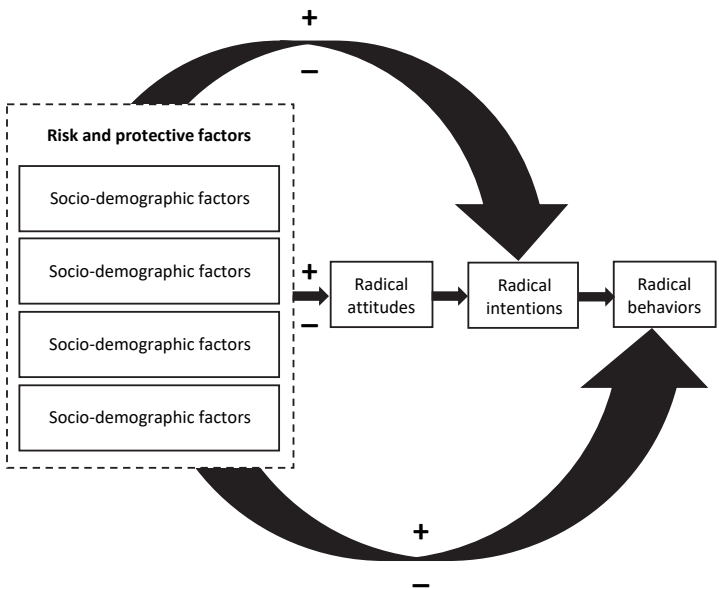
The objective of this review was to advance the evidence-base concerning primary-level counter-radicalization. First, because this is the foundation of counter radicalization and counter violent extremism work, and second because it remains so under-evaluated.

# What gives rise to radicalization?

## Risk and protective factors

Research on risk factors for radicalization has been marked by a significant uptick in recent years. Additionally, whereas early research focused primarily on socio-demographic factors, the literature has been enriched by examinations of a broad range of social, attitudinal, experiential, and psychological factors. The current state-of-the-art in risk factor research was synthesized in a *Campbell Collaboration*<sup>1</sup> systematic review and meta-analysis. The review provided quantitative estimates concerning some 100 different factors, made up of over 1300 effect sizes derived from 207 samples (Wolfowicz et al., 2021). The review analyzed factors as they pertain to three outcomes of radicalization, namely attitudes, intentions, and behaviors. These outcomes of radicalization broadly overlap with the levels at which counter-radicalization is employed, namely the primary, secondary and tertiary levels respectively. It also follows the general logic model that underpins most of counter-radicalization practice, in which risk factors account for cognitive radicalization, which in turn is the central risk factor for behavioral radicalization.

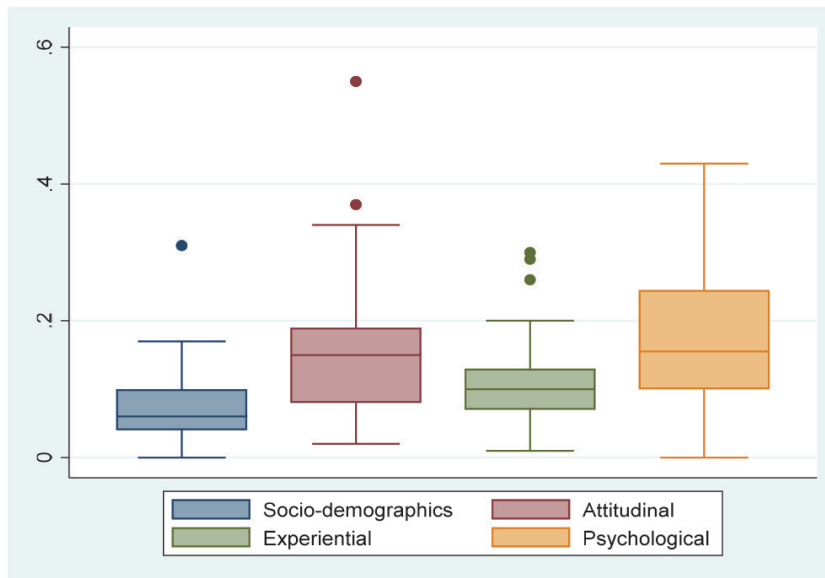
**Figure 3: Logic model from Wolfowicz et al. (2021)**



1. The *Campbell Collaboration* is a sister organization of the *Cochrane Collaboration*, promoting evidence-based policy and practice through the publication of systematic reviews and other types of evidence synthesis.

The approach taken by Wolfowicz et al. (2020, 2021), including its inclusion criteria and outcome definitions, has already been adopted by several other reviews (e.g., Batzdorfer, & Steinmetz, 2020; Emmelkamp et al., 2020; Jahnke et al., 2021). While these reviews sought to examine a specific subset of factors (e.g., mental health), or factors as they pertain to certain segments of the population (e.g., youth), a review by Wolfowicz et al. (2021) took a field-wide approach, seeking to capture the broadest range of factors examined in the literature. The findings of the review grouped factors into the following categories: 1) Socio-demographic factors, 2) Experiential factors, 3) Attitudinal factors and 4) Psychological/Personality factors. An additional category of ‘criminological factors’ includes factors that may overlap with any of the primary categories, but which are directly related to central criminological theories.

**Figure 4: Box plots based on correlation coefficients from Wolfowicz et al. (2021)**



The primary findings are that socio-demographic factors have the smallest effects, while psychological and criminological factors have the largest effects. The review also found that little heterogeneity between different radicalizing ideologies, and as confirmed in a replication study, between regions of democratic countries. This means that effect sizes for identified factors remain stable between European and other democratic countries (Wolfowicz, Weisburd and Hasisi, 2021). The results of the meta-analysis highlight that most factors have ‘small’ relationships with radicalization, with correlations between  $r$  0.1 and

0.3, and it is within this range that some of the factors most frequently targeted by counter-radicalization, such as 'integration,' are to be found. This finding raises the question as to whether interventions are targeting factors that have the most salient relationships with radicalization, or whether their choice of factors for targeting may be more of a reflection of local historical and social norms (Hardy, 2018; Wolfowicz, Weisburd & Hasisi, 2021).

At the same time, the review emphasizes the complex dynamics that occur between risk factors as they pertain to radicalization. In this regard, risk factors may have additional cumulative or interactive effects, or both. According to the cumulative hypothesis, the greater the number of risk factors present in a given case, rather than any specific factor or combination of factors, the greater the risk. According to the interactive hypothesis, there are certain factors which have interactive effects so that when they are both present in a case, there is an added interactive weight. With a lack of evidence to support one of these hypotheses over the other, we may assume that both dynamics are likely to exist, as they do with respect to other forms of deviance. As such, we can also expect that counter-radicalization interventions that target multiple factors are more likely to be effective than those that target fewer. However, interventions that target related factors, especially if the combined relative magnitude of the effects for those factors is large, may also prove to be more effective than those that target a larger number of factors that carry less weight.

# An alternative approach to assessment of programs

As emphasized above, there are ongoing debates as to which factors counter-radicalization interventions ought to be targeting if their aim is to be as effective as possible. In the absence of evaluation studies, the debates remain essentially irreconcilable. Despite several reviews of counter-radicalization strategies and interventions having been conducted, they have almost all come to similar conclusions, namely that few rigorous evaluations exist. The lack of evaluations of primary level interventions was already noted in the UK government's 2011 report on its PREVENT strategy, under which dozens of primary level interventions were carried out. According to the report, evaluations have mostly focused on measuring outputs rather than outcomes. As the report explains, outcomes, such as changes in attitudes and behaviors, are inherently difficult to assess when it comes to primary level interventions. Another issue noted in the report is that many interventions were designed to target factors 'before the evidence base had matured' (HM Government, 2011). Despite these issues, the report also emphasizes that one area in which PREVENT had experienced significant improvement was in the identification of risk factors for radicalization. It goes on to say that moving forward, it is important for interventions to focus on the targeting of such factors and for changes in these factors to be measured as outcomes.

In the absence of evaluation studies, most reviews to date have focused on other elements of counter-radicalization strategies and interventions. These include reports that have detailed the nature of the 'whole of society' approach taken by different countries. These reviews generally focus on identifying the different agencies and stakeholders involved in a particular strategy and comparing their structures and forms of cooperation (e.g., Kudlacek et al., 2017).

Recognizing that the lack of evaluations precludes the carrying out of a typical systematic review of outcomes, researchers have occasionally sought out alternative approaches to making basic assessments of the potential efficacy of counter-radicalization interventions (Gielen, 2019; Gielen & Dijkman, 2019). Another set of approaches seeks to identify whether, and to what degree counter-radicalization strategies and interventions are targeting particular areas of interest that are considered to be important. Recently, Stephens, Sieckelinck and Boutellier (2021) carried out a review that focused on identifying the types of factors targeted in counter-radicalization interventions. They identify four common themes among interventions discussed in the 73 items included in their review: 1) Resilience, 2) Developing cognitive resources, (3) Fostering character traits, and (4) Promoting or strengthening values. Within these themes are focuses on factors such as identity, dialogue, and engagement. However, one key limitation of this study was that the interventions reviewed were overwhelmingly one-off, researcher-led pilots of interventions. That is, they were not the type of primary interventions currently employed under the auspices of official policy and practice.

However, an earlier review of 43 de-identified programs operating under the auspices of the UK's PREVENT strategy was carried out by Hirschfield et al. (2012), who took a similar approach. The review identified eight primary themes pertaining to the specific risk factors and risk factor domains targeted by the interventions, namely: Multicultural awareness, identify and belonging, personal and social education, constructive activities, offending reduction, support networks (families), theology, and resilience of communities. They describe multicultural awareness as being 'aimed to increase participants' understanding of other cultures, religions and ethnicities, to increase interaction between young people from different backgrounds and to promote cultural tolerance.' Whilst evaluation data was not available, the authors mapped out the number of factors targeted by each intervention. The results of this approach led the authors to opine that interventions targeting only one of the five domains were likely to be less effective than those targeting two or more. Below we display an abridged version of the tables in the original report limited to the 21 programs that specifically targeted radicalization.

**Table 1: Excerpt from Hirschfield et al. (2012)**

Project #	Identity and belonging	Support networks: Families	Personal and social education	Multicultural values	Offending reduction	Theology
London YOT3	•					
Yorkshire YOT 6	•		•	•		
London YOT 10	•			•		
London YOT 16	•		•	•	•	
W. Midlands YOT3	•	•	•	•	•	
London YOT 19	•	•	•	•	•	
London YOT 17	•		•	•	•	
London YOT 7	•	•	•	•	•	
London YOT 14	•	•	•	•	•	
STC 2	•		•	•	•	
Eastern YOT 1	•		•	•	•	
S. West YOT 2	•		•	•	•	
London YOT 18	•		•	•	•	
W. Midlands YOT 1	•	•	•	•	•	
London YOT 13	•	•	•	•	•	
London YOT 4	•		•	•	•	•
N. West YOT 2	•	•	•	•	•	•
E. Midlands YOT 3	•	•	•	•	•	•
S. East YOT 2	•		•	•		•
S. East YOT1	•	•	•	•	•	•
London YOT 11	•	•	•	•	•	•

We believe that mapping factors targeted by interventions represents a useful approach for comparing the potential effectiveness of counter-radicalization interventions in the absence of evaluation studies. Such a method represents a unique analytical approach that fits in well with the type of realist review that has recently been used in examining counter-radicalization strategies and interventions (Veldhuis, 2012; Gielen, 2019; Gielen & Dijkman, 2019). Realist reviews are intended to provide a plausible theoretical explanation based on the available evidence as to why an intervention works and under what conditions. Traditionally this involves examining the ‘context,’ ‘mechanism’ and ‘outcome.’ Context includes the theoretical underpinnings of an intervention, whereas mechanisms refer to the means by which the outcome is to be achieved, and the outcome being the actual evidence about changes in the outcome.

In the case of counter-radicalization the basic theory is the same, namely that by targeting some combination of risk and protective factors, it is possible to reduce the likelihood of the development of a future outcome, namely radicalization. What differs between them most is the mechanism, which particular factor(s) are targeted. As discussed above, we already know that there is scant evidence concerning outcomes. However, there is considerable evidence concerning the relationship between mechanisms (risk and protective factors) and outcomes. Additionally, realist reviews also consider the conditions under which interventions may be successful. In this regard, we follow the approach of the systematic review and meta-analysis of Wolfowicz et al. (2021) which focuses on a more heterogeneous set of democratic settings that take similar approaches to counter-radicalization. At the same time, we are able to draw on the results from moderator analyses for identifying certain circumstances under which risk factors may have differential effects, such as in different regions, or with respect to different radicalizing ideologies.

In such a situation, the current study employs a realist review, which is particularly well suited for exploring what types of complex interventions are most likely to be effective (or not) and under what conditions, given what is known about the relationship between their context, mechanisms and outcomes (e.g., Saul et al., 2013; Zibrowski et al., 2021). Of course, a review of this nature should not be taken to be a replacement for evaluation studies let alone a meta-analysis of randomized controlled trials, RCTs, should that eventually be possible. Rather, it represents a specific methodological tool that can be used to promote the advancement of both research and practice. Other methodological tools, such as Agent-Based Modelling are used in a similar way at the level of the evaluation of individual interventions (Weisburd et al., In Press). Given the current state of the body of knowledge, a realist review at this stage should serve to guide and direct the limited resources available for field evaluations, ideally focusing on programs that offer the most promise (Tilley, 2016).

# The current study

The current study was carried out from the starting point that it is unlikely enough evaluations of counter-radicalization interventions exist to carry out a meaningful analysis and comparison of effectiveness. As per the above, we sought to develop an approach that would enable us to identify the potential for an intervention to be successful based on the assumption that it could successfully impact the risk and protective factors that it specifies for targeting. In taking this approach we were less concerned with the mode of delivery, or the form taken by an intervention and more interested in whether it targets evidence-based factors. Given the structure of counter-radicalization practice, we were also interested in identifying whether national strategies had identified evidence-based factors for targeting, and whether interventions carried out in those same countries overlapped in this regard. Whereas previous reviews have focused primarily on examples of possible counter-radicalization interventions, such as researcher-led psychological interventions, we were interested in interventions currently being carried out under the auspices of government and their national strategies.

Our analytic approach follows that of Hirschfield et al. (2012), in which we map the risk and protective factors explicitly identified by national strategies and interventions. We draw on the recent *Campbell Collaboration* systematic review and meta-analysis for categorizing and labeling identified factors, and for juxtaposing them with known effect sizes (Wolfowicz et al., 2021). Where necessary, we also draw on recent evidence concerning effects of factors that were not included in this review. Throughout the narrative we include, where possible, references to the known effect sizes of relevant factors. All effect sizes are described as  $r$  correlations based on the available evidence. Following Wolfowicz et al. (2021), effect sizes can be grouped as follows: very small/inconsequential ( $r < .10$ ), small ( $r < .29$ ), moderate ( $r < .49$ ), Large ( $r > .50$ ). In taking a realist approach, we also discuss instances in which there are specific conditions under which the effects of factors may differ. However, we note in advance that only small differences were found for a small number of factors with respect to relevant contextual moderators such as region, ideology, age and gender. For

each intervention identified, we conducted extensive searches to try and identify evidence of evaluations pointing to their effectiveness in changing targeted risk factors, and, or radicalization outcomes.

In taking this approach our review set out to address two research questions:

*R1:* To what degree are the factors targeted by official counter-radicalization strategies and interventions evidence-based?

*R2:* Based on the factors targeted by official counter-radicalization policies and programs, which are most likely to be effective or otherwise offer the most promise?

# Methodology

Given the current state of the literature, and with the emphasis of counter-radicalization being at the primary-level, this is the level of interventions that the current review was concerned with. Below we outline the review's inclusion and exclusion criteria, which were used to ensure the comparability of similar types of interventions across comparable contexts.

## Included interventions

Interventions had to have a specific focus on countering radicalization (or violent extremism) at the primary level. This meant that the intervention or program had to be specifically aimed, or have components aimed, at reducing or otherwise combatting cognitive radicalization in the general population, or some targeted population. We sought to include interventions that met the following criteria:

1. Interventions carried out domestically.
2. Interventions carried out by or under the auspices of government and which are part of a national strategy.
3. Interventions that are currently employed as of 2021.

## Exclusion criteria

In line with the above, we excluded interventions that were explicitly secondary level, in which they focus on radicalized individuals, and tertiary level interventions in which they focus on current or former offenders, or interventions carried out within the prison system and post-release system. While these are important components of countering violent extremism (CVE), in line with the public-health model, we view them as separate from counter-radicalization (see Hassan et al., 2021).

In line with the above inclusion criteria, we also excluded researcher-led pilot or laboratory studies. These types of studies have been included in a recent systematic review and meta-analysis and are not known to be carried out on a large, primary-level scale (Jugl et al., 2020). Even if the research was funded by government agencies, these interventions are not currently being employed as part of the standard array of CVE interventions in the respective countries (e.g., Boyd-MacMillan, 2016; Liht & Savage, 2013). We also excluded interventions that were based on counter-narratives and online media campaigns targeting radical narratives directly rather than any underlying risk or protective factors. These types of interventions have been the subject of a recent *Campbell Collaboration* systematic review and we believe they represent a distinct line of inquiry (Carthy et al., 2020). However, when such interventions targeted risk factors, rather than radical narratives themselves, they were eligible for inclusion.

In this study we also excluded systems, including tools and strategies, that facilitate counter-radicalization or counter-terrorism practice. Common examples are hotlines for the reporting of suspected radicalization or for families seeking support. Another example is leverage strategies, such as the threat of freezing social benefits for families who refuse to facilitate their child's participation in counter-radicalization programming. We also excluded 'interventions' which focus on coping for families of individuals who have already carried out acts of terrorism. While families are often involved in, and may play an important role in tertiary programs, and familial bonds are known protective factors for radicalization (Wolfowicz et al., 2020, 2021), the exclusion refers to programs whose primary focus is the wellbeing of the family members. These programs usually are geared toward the families of those who have traveled to join terrorist groups abroad and who are often deceased (e.g., Koehler & Ehrt, 2018). Moreover, we also exclude interventions that are professional training programs, such as those that train educators, social workers, or other professionals on identifying signs of radicalization. Lastly, we excluded interventions whose objectives were merely to raise awareness of the issue of radicalization, or to increase willingness and ability to identify and report suspected cases of radicalization to authorities. While these types of interventions may form part of a broader Counter Violent Extremism (CVE) approach that includes elements of responding to and recuperating from violent extremism, and may also contribute to resilience, they are not aimed at counter-radicalization per se.

# Included countries

In line with the systematic review of Wolfowicz et al. (2020, 2021), we focused on OECD member countries (excluding Turkey and Colombia<sup>2</sup>). This decision was made to ensure that the strategies and contexts in which they are carried out would be comparable. While there is known to be a great degree of heterogeneity between high- and low-income countries, as well as democratic and non-democratic countries, there is a great degree of homogeneity between OECD countries when it comes to the effects of risk factors for radicalization (Wolfowicz, Weisburd and Hasisi, 2021).

## Search strategy

The nature of our review is somewhat different from a traditional systematic review. Additionally, we expected that most of the material concerning interventions would be published by government agencies and NGOs. As such, a traditional search of databases would be insufficient for capturing and identifying relevant publications. Instead, we commenced our search by searching the EU Foreign Affairs database of counter-radicalization strategies. For non-EU states, we used Google searches to identify national counter-radicalization strategies.<sup>3</sup>

In order to identify individual interventions, we first reviewed the EU's Radicalization Awareness Network (RAN) database of 200 strategies. We also followed the approach of Hassan et al. (2021) by scouring the ITTI database. We subsequently identified databases from the NSW, Australia, government. Outside of these searches, we also carried out extensive Google searches and extensive snowballing of published national strategies, as well as academic publications. We estimate that we reviewed over 10,000 items during this process.

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2. Turkey is the only OECD country listed as 'non-democratic' by the democracy index. Columbia joined as an OECD member in 2021, whereas its CVE policies would have been developed before this time and prior to the commencement of the present research.

3. [https://ec.europa.eu/home-affairs/what-we-do/networks/radicalisation\\_awareness\\_network/ran-and-member-states/repository\\_en](https://ec.europa.eu/home-affairs/what-we-do/networks/radicalisation_awareness_network/ran-and-member-states/repository_en)

# Findings Regarding Risk and Protective Factors

Across all policies, practices and programs (PPP) identified in the review there were some 41 risk and protective factors. The factors span the entire range of the original categories identified by Wolfowicz et al. (2021), namely 1) background characteristics, 2) attitudinal factors, 3) experiential factors, 4) psychological factors, and 5) criminogenic factors. To help guide the reader through the results we include here in Table 2 a description of the factors for which effect sizes were able to be derived from the systematic review and meta-analysis of Wolfowicz et al. (2021). The third column presents the effect sizes as  $r$  correlations. In addition to those factors described above in Table 2, a number of other factors were identified for which effect sizes are not known, including: Life skills, conflict management skills, critical thinking, digital literacy, conspiracy theories. These factors will be discussed in the narrative portion of the review.

**Table 2: Description of factors identified across PPP and associated effect size estimates**

Factor	Description	$r$
Conflict management	Coping and social skills to effectively deal with conflict	.25
Education	Learning or acquisition of knowledge, skills, values, morals, beliefs, habits, and personal development	-.07
Democratic attitudes	Attitudes supportive of a democratic system and the values of democratic society	.19
Self-confidence	Trust in one's value and abilities	-.17
Thrill-seeking	Taking risks just for fun or adventure, without thinking of consequences	.31
Mental health	Medical conditions related to the emotional, cognitive, and psychological dimensions	.00
	• Depression	.03
	• Adjusted personality disorder	.04
	• Anxiety	.23
	• PTSD	

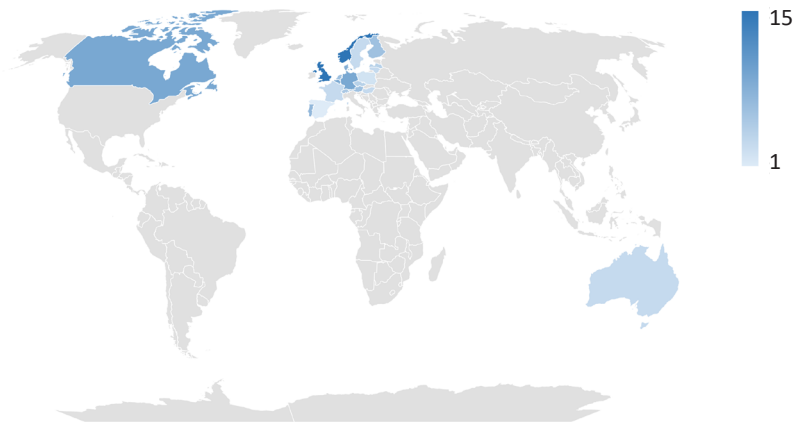
Self-efficacy	Belief/confidence in capacity to achieve objectives	.13
Criminality	Involvement in criminal activities	
	• Juvenile delinquency	.20
	• Criminal history	.29
Segregationist attitudes	A belief that groups should be socially segregated	.15
Family issues	• Family violence	.10
	• Parental abuse	.13
Collective relative deprivation	A sense that an in-group is deprived relative to a reference group, often a result of discrimination	.16
Substance abuse	Frequent use of illicit substances	
	• Alcohol	.04
	• Drugs	.12
Psychological well being	An individual's emotional health, overall functioning, and happiness	
	• Life satisfaction	-.19
	• Life attachment	.41
	• Social support	-.12
Search for meaning	Searching for meaning in life or personal significance	.14
Deviant peers	Criminal, racist, or radical peers	.17
Identity	• Problematic national/ethnic/ religious identity	.07, .15
	• Conflict between multiple identities	
Anomia	Social alienation	.19
Experiencing violence	Witnessing or experiencing violent events	.07
Uncertainty	Anxiety about the future and possible events	.07
Tolerance	Tolerance of other national/ethnic/religious groups	.43
Political grievances	Opposition to foreign policy in other countries	.15
Teacher bonds	Positive, personal connections with teacher(s)	-.13
School bonds	Enjoying going to school/studying/attachment	-.13
Online deviant contact	Internet-based contact with deviants/radicals	.26
Employment	Being active in the workforce in a paying job.	.05
Family bonds	• Parental control	-.10,
	• Parental involvement	-.12
Welfare	Receiving of financial assistance	.05
Political efficacy	Having influence or being represented in the political process	
	• Participation	.01,
	• Efficacy	-.05
	• Satisfaction	-.15
Perceived injustices	Feeling that individual or group is treated unjustly	.08
Integration/social cohesion	Strong sense of solidarity and belonging by and among members of a community	.16
		.20
Experiences of discrimination/injustice	Experiencing discrimination or being treated unjustly based on some feature of identity	.08

Institutional trust/ legitimacy	• Confidence in government institutions	-.17
	• Legitimacy of government institutions	.22
	• Respect for the government/law/authorities	-.55
Sense of belonging	The feeling that one does not belong and is not meaning- fully connected to others	.19
Financial	Objective socio-economic conditions	-.04

## National strategies

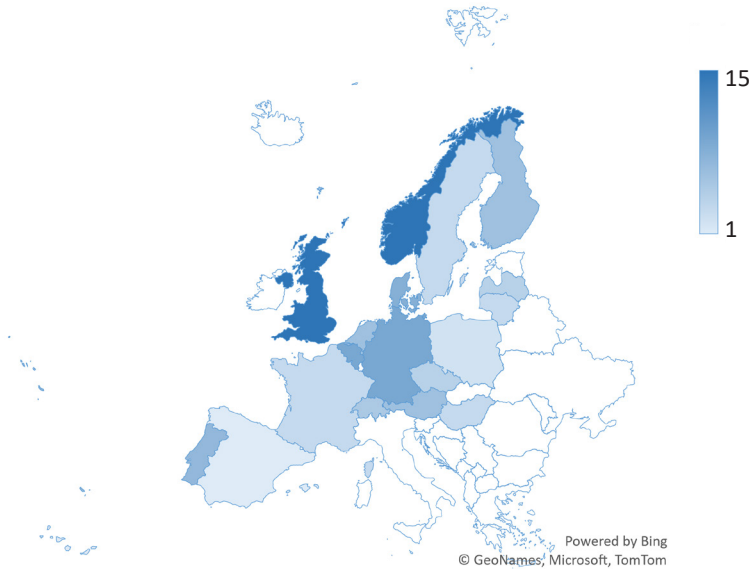
Our review identified national strategies for 21 of the eligible countries. There was a median of 5 factors mentioned in the national strategies ( $M=5.9$ ,  $SD=3.86$ ), although the strategies of several countries target more, with the UK targeting 15 factors. The maps below show which countries target the largest number of factors, with the second heatmap focusing on Europe.

**Figure 5. Number of factors per country**



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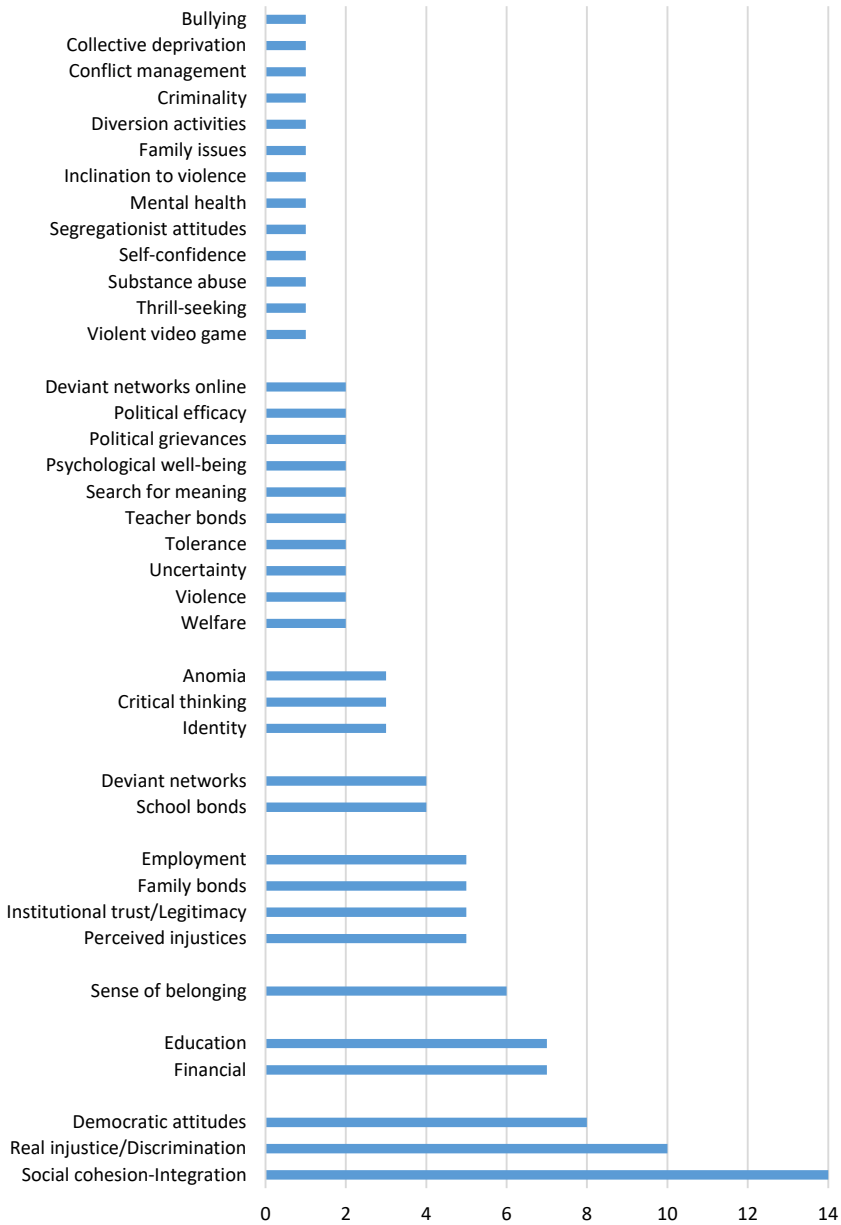
**Figure 6. Number of factors, Europe only**



Across all strategies, a total of 39 different risk and protective factors could be identified. While some risk factors were mentioned in only a single strategy, others were mentioned far more frequently, with the most frequent being noted in 14 (or two thirds) of the strategies. For the most part, risk and protective factors identified in the strategies could be conceptually linked to factors derived from the meta-analysis of Wolfowicz et al. (2021) and as such, estimates of effect sizes were able to be attached to them. The estimates for the risk factors range between  $r=.03$  to  $r=.43$ , with a mean  $r$  of  $.15$  ( $SD=.09$ ). However, there were three factors for which evidence concerning effect size was not available. These factors will however be discussed in the narrative in the forthcoming sections.

Below in Table 3 we present a heatmap in which each of the national strategies have been coded according to the risk and protective factors that they specifically target, and the relative magnitude of the effects for those factors as derived from the meta-analysis. The countries are arranged along the Y axis in alphabetical order, whereas the factors plotted on the X axis are arranged from largest to smallest effects (left to right). The scale is coded from dark green (relatively stronger effects) to red (relatively weaker effects). As can be seen, only five countries target factors with moderate effect sizes. While the other countries target multiple factors with only small effects, these can still have robust relationships with radicalization. Except for three countries, all countries target one or more factors with very small effects ( $r<.10$ ).

**Figure 7. Frequency of factors targeted in national strategies**



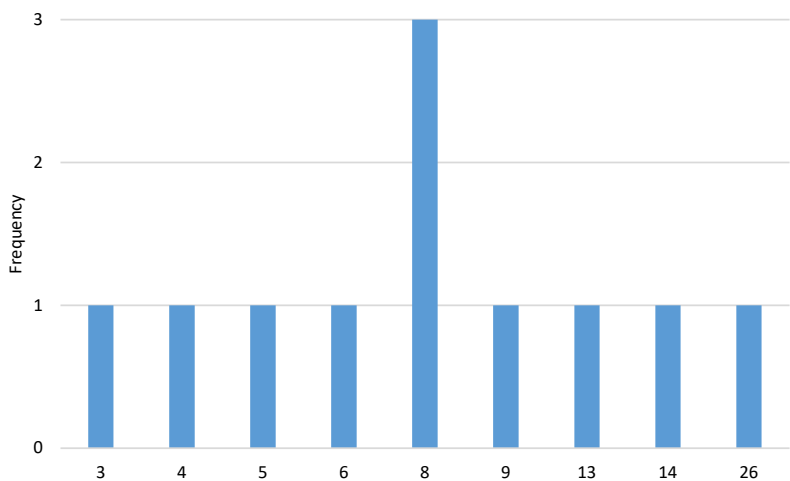


# Local or municipal strategies

For some countries, such as Belgium, Denmark, Norway, the Netherlands and Sweden, individual locales and municipalities are tasked with carrying out counter-radicalization. While a EUROCITIES report describes a broader range of municipal strategies, we identified 11 published strategies from local municipalities. We note that the EUROCITIES report was based on data submitted directly to it from the cities. Given the nature of the review and the analytic framework, we were only able to include local strategies when the original strategy document was available.

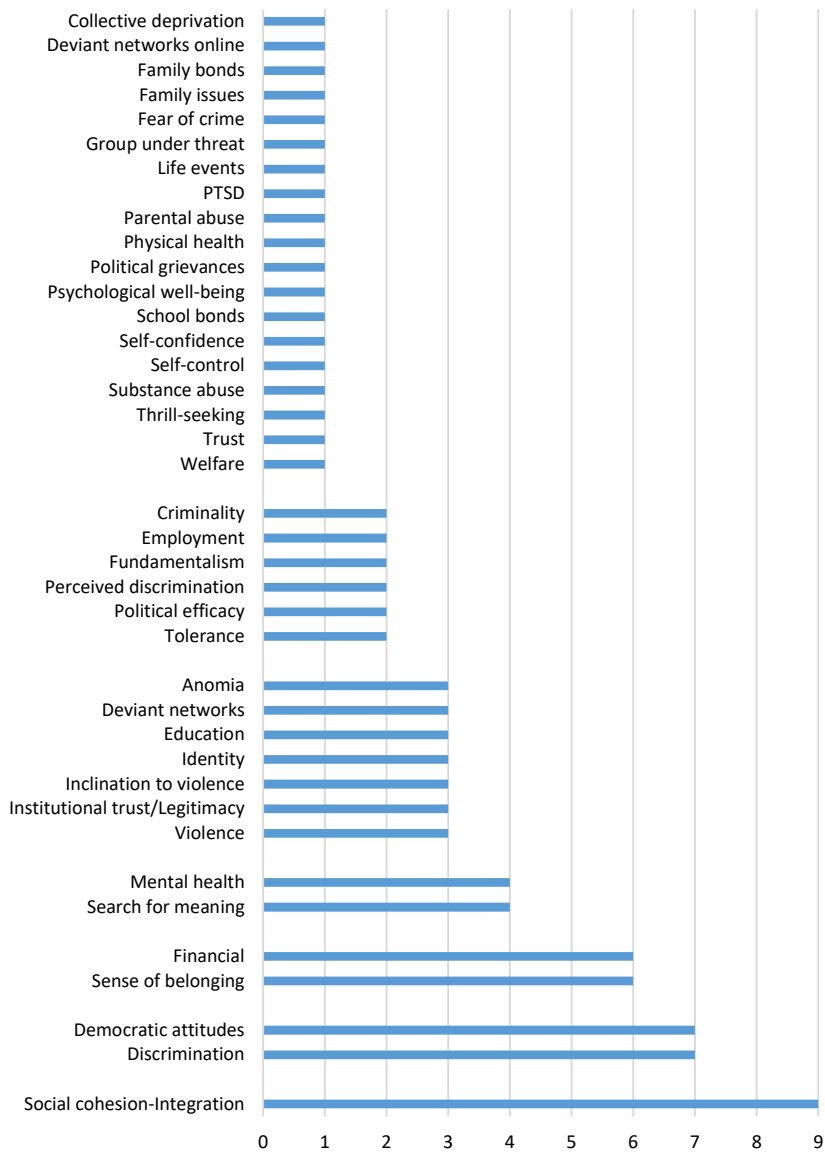
In general, these strategies overlapped with the risk factors specific in their respective national policies. However, in some cases, they also evidenced a broader approach to risk factors, with a median of 8 factors targeted by the included strategies. The local strategy that lists the largest number of factors is that of Trondheim, Norway, with 26 factors.

**Figure 7. Number of factors targeted in local strategies**



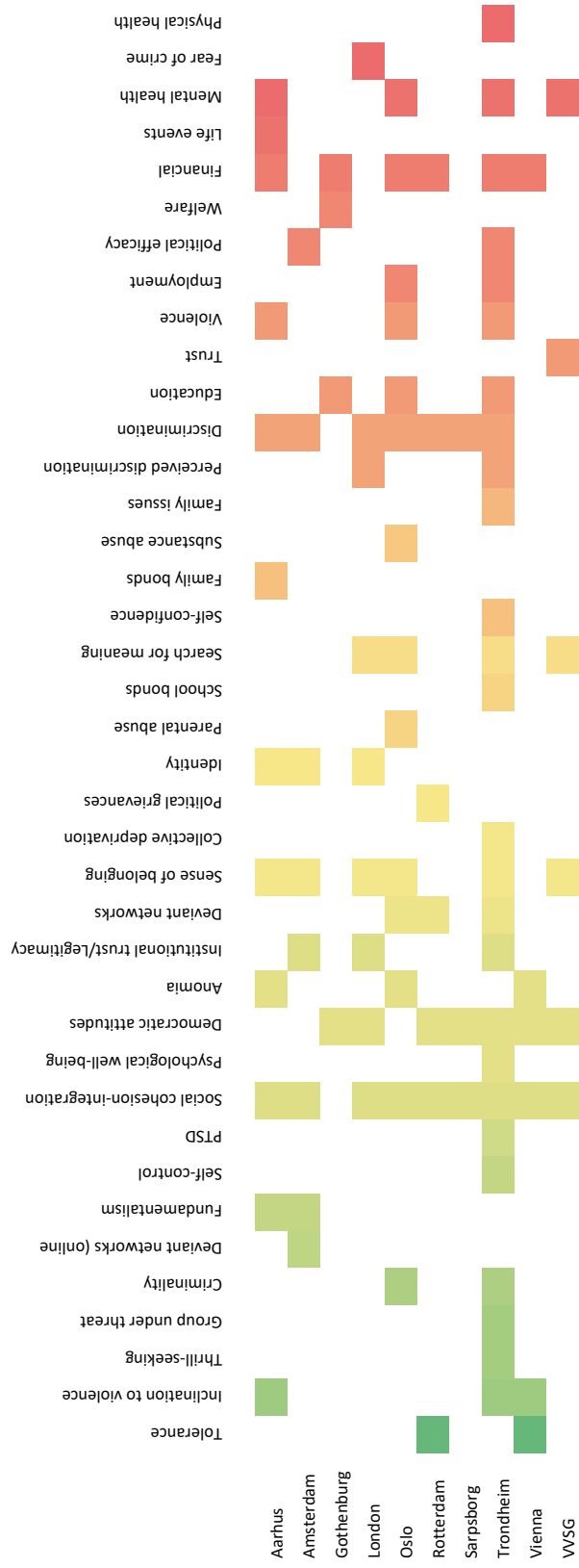
The local strategies include references to a number of factors not mentioned in the national strategies, including: Fundamentalism, self-control, physical health, fear of crime, stressful life events, and group-based threats. With the exception of the strategy from London, UK, and Sarpsborg, Norway, all local strategies target multiple factors that have moderate effects. Overall, targeted factors had effect sizes ranging between .02–.43, with a mean  $r$  of .14 ( $SD=.09$ ).

**Figure 8. Frequency of factors targeted in local strategies**



Below in Table 4 we present a heatmap in which each of the national strategies have been coded according to the risk and protective factors that they specifically target, and the relative magnitude of the effects for those factors as derived from the meta-analysis. The countries are arranged along the Y axis in alphabetical order, whereas the factors plotted on the X axis are arranged from largest to smallest effects (left to right). The scale is coded from dark green (relatively stronger effects) to red (relatively weaker effects).

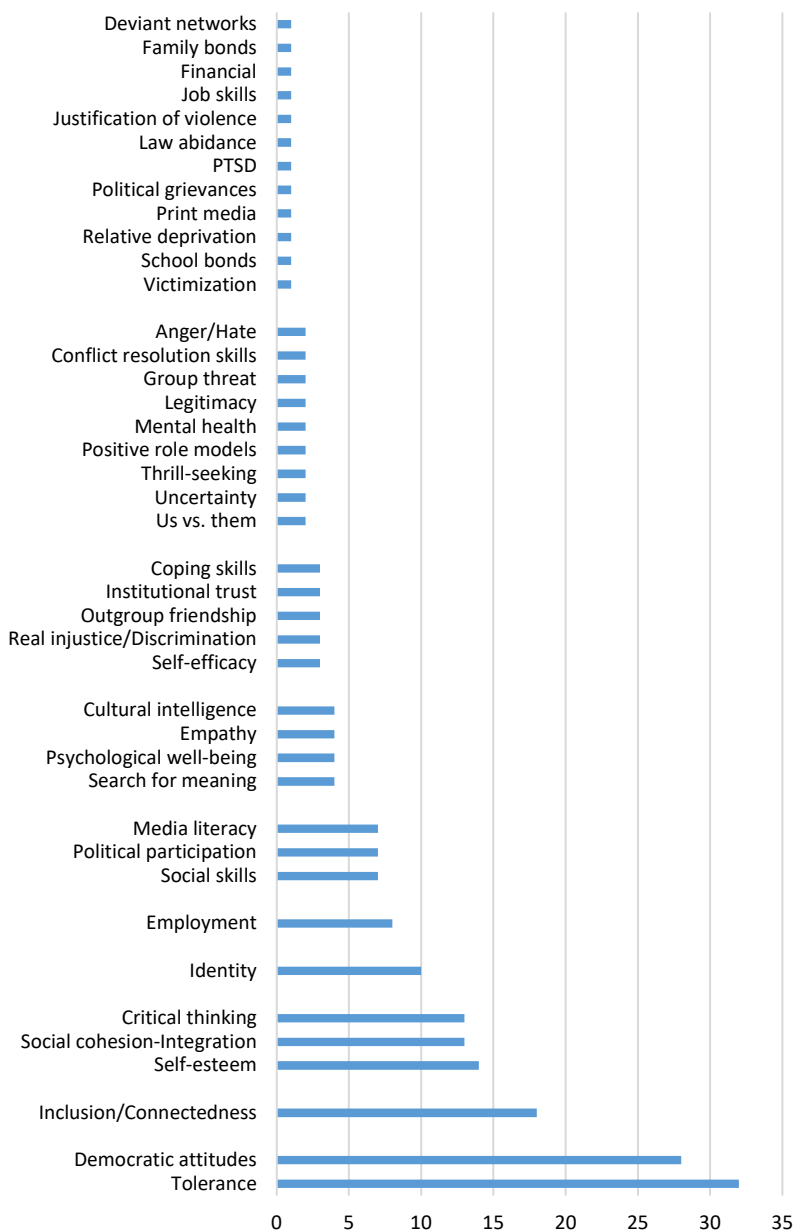
**Table 4: Heatmap of factors targeted in local strategies**



# Interventions

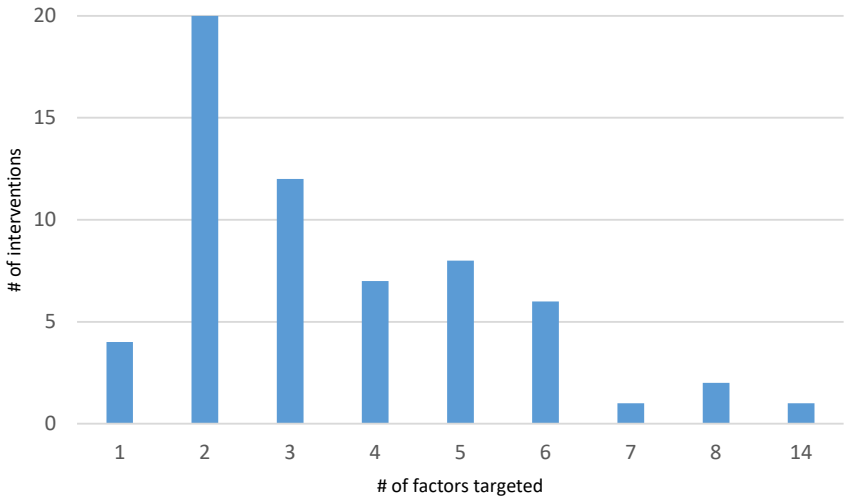
The review identified 64 interventions from 13 of the included countries. From these interventions we identified 41 different risk and protective factors that were explicitly noted. While four of the interventions only targeted a single factor, most interventions targeted multiple factors, with a median of three factors targeted per intervention.

**Figure 9. Frequency of factors targeted in interventions**



While a number of factors were only targeted in a single intervention, others were targeted in multiple interventions. Tolerance and democratic attitudes were the two most commonly targeted factors, followed by inclusion (social alienation), self-esteem/self-confidence, and integration/social cohesion.

**Figure 10. Number of factors targeted per intervention**



For the most part, risk and protective factors identified in the interventions could be conceptually linked to factors derived from the meta-analysis of Wolfowicz et al (2021) and as such, estimates of effect sizes were able to be attached to them. The estimates for the factors ranged between  $r=.04$  to  $r=.55$ , with a mean  $r$  of  $.19$  ( $SD=.12$ ). However, there were nine factors for which evidence concerning effect size was not available. These factors will however be discussed in the narrative in the forthcoming sections. Below in Table 5 we present a heatmap in which each of the national strategies have been coded according to the risk and protective factors that they specifically target, and the relative magnitude of the effects for those factors as derived from the meta-analysis. The countries are arranged along the Y axis in alphabetical order, whereas the factors plotted on the X axis are arranged from largest to smallest effects (left to right).

Table 5: Heatmap of factors targeted in for interventions



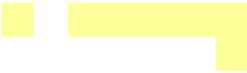
**FRANCE**

- National and Universel Service
- Media and Information Education
- The National Monitoring and Information Mission
- Street art against extremism
- Terrorism: How about listening to what victims have to say?
- The voice of victims against radicalisation



**GERMANY**

- A network for children
- Individual projects of the Federal Cultural Foundation
- Funding of memorials aimed at assessing the National Socialist reign of terror and Communist injustice in the Soviet-Occupied Zone/GDR



- Model projects for cultural education
- National Print Media Initiative
- Foundation for the Study of the SED Dictatorship



- Focus on Participation and Involvement
- Integration through Qualification (IQ)
- Culture makes us strong



- Europe at School



- Acting democratically



- Live Democracy!



- Programme area D



- Störungsmelder on tour



- Courage Campaign



- DEMOCRACY IS IMPORTANT. FULL STOP!



- Couragiert



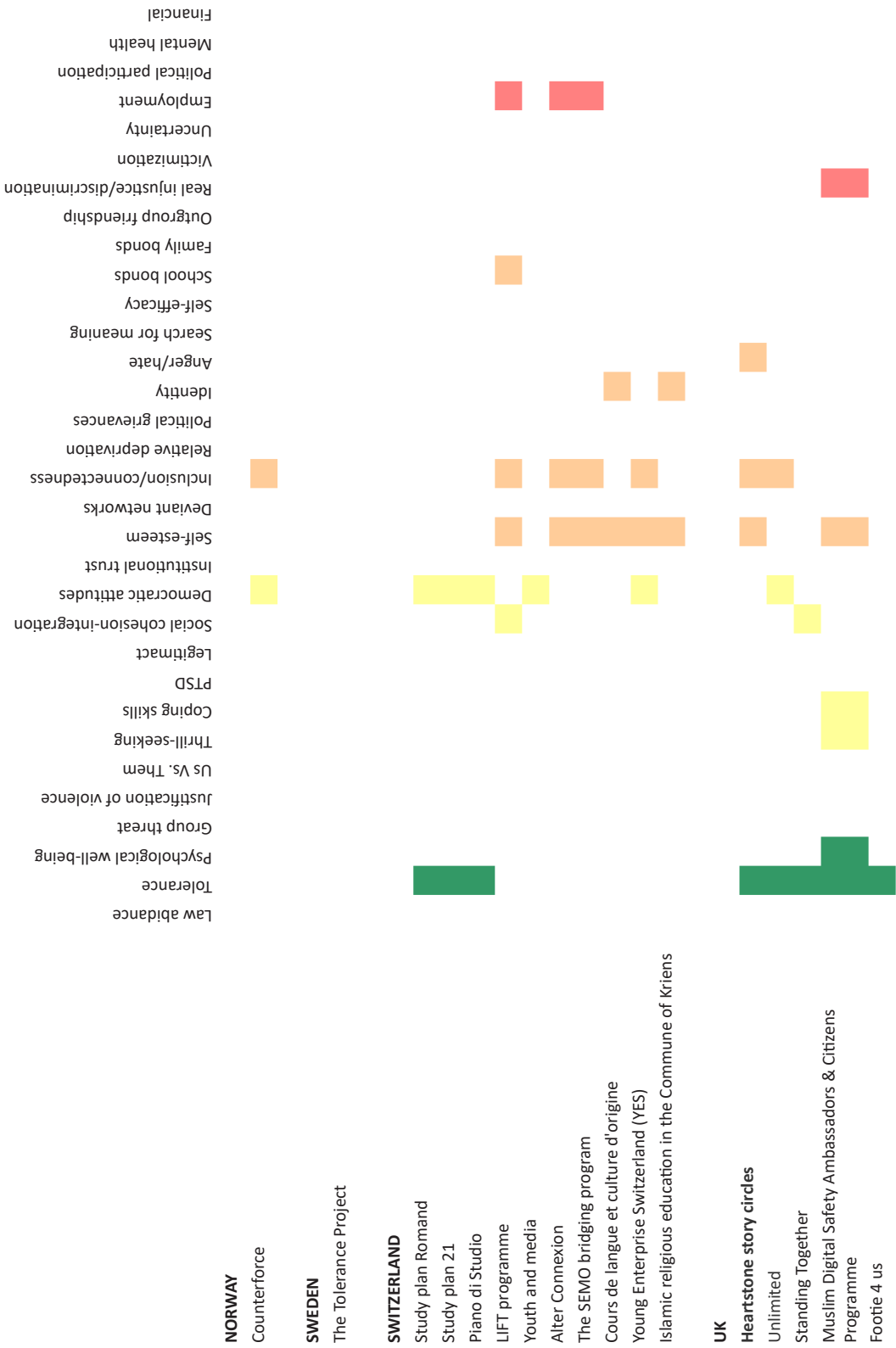
- Gegen Vergessen



**NETHERLANDS**

- Peaceable school
- UCARE







Stand Up!

Diversity Programme

Positive Routes

Media Literacy & Countering the Far Right

Switch off prejudice

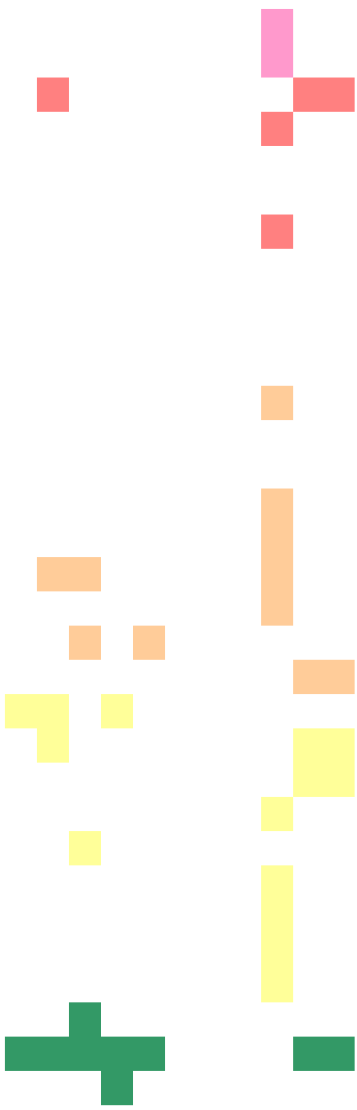
Youth Education Programme

**USA**

WORDE

Los Angeles Framework for Countering Violent

Extremism



# To what degree are the factors targeted by strategies and interventions evidence-based?

## Community resilience, social cohesion, and integration

The most common theme across national and local strategies, as well as interventions, was the promotion of ‘social cohesion’ and ‘community resilience,’ which were often mentioned in conjunction with, or interchangeably with ‘integration.’ Unfortunately, the strategies and interventions included in the review failed to provide a clear definition of these terms, which has been an ongoing issue in the literature (Stephens & Stijn Sieckelinck, 2020). Across the strategies and interventions reviewed, different historical, political and social contexts assign different meaning to these factors. Each of these or analogous factors have estimated effect sizes that can be derived from the systematic review and meta-analysis. These include factors such as self-confidence (-.17), group-based self-esteem (-.11), integration (.20), general trust (-.06), and social support (-.12).

There is evidence that community-based strategies, such as those carried out by Australia’s COMPACT, are able to improve factors relating to integration (Acil Allen Consulting, 2019; URBIS, 2018). However, whilst there is certainly an overarching, positive connotation assigned to these factors, potential iatrogenic effects have previously been identified for integration in particular. The reasoning is that integration and social-cohesion oriented interventions often focus on particular groups that are identifiable by ethnicity or religion. By targeting these groups with primary level PPP in particular, authorities send a message to them and the wider society that they are considered to lack integration and are viewed as posing a risk to society. This stigmatization can actually lead to further divisions in society and make minority group members less inclined to further integrate outside of their communities. This could increase risk factors such as perceived discrimination ( $r=.15$ ) anti-democratic attitudes ( $r=.19$ ), as well as others in which the magnitude of their effects may offset potential improvements in integration. Additionally, this factor is most commonly targeted in European settings, where the effect size is even smaller ( $r=.16$ ) compared to other democratic countries (Wolfowicz et al., 2021a, 2021b).

## Socio-economic conditions

Tackling issues of poverty and objective disadvantage was a factor that mentioned with some frequency across the strategies and interventions identified by the review. Evidence from the meta-analysis indicates that higher socio-economic conditions do not have a significant relationship with radicalization ( $r=-.04$ )

and receipt of welfare benefits even has a very small risk, rather than protective effect ( $r=.05$ ). Evidence shows that the effects of objective socio-economic status are even smaller in European contexts than they are in other democratic settings (Wolfowicz et al., 2021a, 2021b). Additionally, the risk effect of welfare is not the same for all groups. For studies measuring Islamist radicalization, the meta-analysis found that the risk effect was smaller, and not statistically significant.

At the same time, we should not discount the relationship between objective economic conditions and other factors which have more robust relationships with radicalization. Poverty can play a role in individual relative deprivation ( $r=.11$ ), collective relative deprivation ( $r=.16$ ), and be a source of strain ( $r=.13$ ). A related factor that was mentioned by several strategies and interventions was employment. Whilst employment also has a very small relationship with radicalization ( $r=.05$ ) it may be related to similar factors. How employment is achieved, by who, and the type of employment may play a role in the ways in which employment may serve as a protective effect against radicalization. Among the interventions there are different ways of promoting employment, including vocational training, and grants to employers who hire members of certain disadvantaged communities. An intervention operated by the Department Werk & Sociale Economie (WSE) in Belgium combines professional training and employment services. An evaluation of the program has found that it is effective in both the acquisition and maintenance of employment (De Blander & Groenez, 2016). The program views employment as more than simply improving socio-economic conditions but also playing a role in the development of self-efficacy, and relieving uncertainty, which are key components of psychological well-being (Discussed below). In a similar vein, many of the strategies and interventions targeting socio-economic factors draw a theoretical link between employment and social integration and inclusion, rather than approaching it from a socio-economic perspective. As discussed elsewhere throughout this narrative, these factors have robust relationships with radicalization.

## Mental health and psychological well-being

A small number of strategies and interventions note the targeting of mental health and psychological well-being. Whilst these factors are often treated as being inter-related, they are actually quite distinct and are made up of multiple components. In the case of mental health, the systematic review and meta-analysis identified different effects for depression ( $r=.00$ ), anxiety ( $r=.04$ ), adjusted personality disorder (APD;  $r=.03$ ), and post-traumatic stress disorder (PTSD;  $r=.23$ ). The wide variation in effect sizes between the former three and the latter factor demonstrate that when targeting mental health, it is important to consider which elements may be of concern in the case of radicalization, and it is not clear that strategies and policies are making this distinction. Only in

the case of the WORDE intervention in the US is PTSD explicitly referred to.

So too, psychological well-being is a construct that includes multiple factors. Psychological well-being relates to an individual's emotional health, overall functioning, and happiness, which includes factors identified in the meta-analysis such as life attachment ( $r=.41$ ) and life satisfaction ( $r=.19$ ). However, in line with factors specified by popular models of psychological wellbeing (e.g. Seifert, 2005), a number of other factors targeted by strategies and interventions would fall under this rubric, including improving sense of belonging ( $r=.19$ ), seeking of meaning or significance ( $r=.14$ ), self-confidence/self-esteem ( $r=.17$ ), self-efficacy ( $r=.13$ ), social support ( $r=.12$ ), social isolation ( $r=.16$ ), identity ( $r=.15$ ), and uncertainty about the future ( $r=.07$ ).

For two of the Australian interventions, COMPACT and Reach Out, which are both community services-based interventions, there is evidence from evaluations of improvements on some of these factors. In the case of COMPACT this includes: self-confidence, self-efficacy, and hope for the future (Acil Allen Consulting, 2019; UBRIS, 2018). In the case of Reach Out, an internet-based intervention, participants reported improvements in feeling validated and heard, self-efficacy, self-awareness (which is related to healthy identity), and reduced isolation (Miller et al., 2020). Education based interventions, such as the Netherlands UCARE, also demonstrate evidence of positive effects on self-efficacy, assertiveness (a component of healthy self-esteem), and identity awareness (Sklad et al., 2020).

## Personal skills

The review identified that a number of strategies and interventions target a range of personal skills. The most frequently mentioned of these is critical thinking. Critical thinking refers to the ability to properly approach different topics and includes elements of analysis, interpretation, inference, explanation, self-regulation, open-mindedness, and problem-solving. Despite its wide consideration in policies, critical thinking was not included in the recent systematic review and meta-analysis as at the time the review was carried out, only a single effect size was identifiable. While there is more recent research exploring this factor, it raises the question as to whether some empirical basis was responsible for encouraging the focus of counter-radicalization on this factor, or whether it is this focus that has prompted recent research. There is also some research that shows that the typical forms of dialogue training that seek to improve critical thinking can potentially have the opposite effects, and in turn increase outcomes theoretically linked to radicalization, such as polarization (Schulzen, Vermeulen & Doosje, 2020).

Similarly, there is a lack of evidence concerning the magnitude of the relationship between media literacy and radicalization. Theoretically, media lite-

racy ought to make individuals, and youth in particular, more capable of recognizing radical media and subsequently be less affected by. However, there is some evidence that media literacy has no impact on reducing contact with radical media (Nienierza et al., 2021).

A small number of interventions focused on developing conflict management, resolution, social, coping and communication skills. None of these factors were captured by the systematic review and meta-analysis of Wolfowicz et al. (2021). However, a meta-analysis carried out by Piquero et al. (2016) found that interventions targeting such factors are quite effective in reducing delinquency and have an even larger impact on improving self-control. In this regard, both juvenile delinquency ( $r=.20$ ) and self-control ( $r=.25$ ) were identified by Wolfowicz et al. (2021) as being among the most salient risk factors for radicalization (Wolfowicz et al., 2021). A recent longitudinal study by Nivette et al. (2021) has also found that those weak in coping skills are more likely to develop radical attitudes over the course of adolescence. As such, there is some evidence to suggest that interventions targeting this set of factors, if successful, could lead to a significant reduction in the risk for radicalization.

Relatedly, one national strategy and a small number of interventions note the targeting of thrill-seeking/risk-taking, which is conceptually linked to self-control (Steinberg et al., 2008). Here, self-control is the cognitive element of control and thrill-seeking/risk-taking represent the socioemotional components of the individual's control system. The systematic review and meta-analysis found that thrill-seeking/risk-taking ranks as the factor with the tenth largest effect size for radicalization ( $r=.30$ ). There is also evidence that effects of this factor are even larger for males, as the meta-analysis found that effect sizes were larger in samples that had a larger proportion of males ( $\beta=.01$ ).

## Social bonds

The systematic review and meta-analysis identified that among the most salient factors for radicalization were those associated with traditional criminogenic factors. Among these were factors related to social bonds. Among the strategies and interventions included in this review were several identifications of different types of social bonds as representing risk and protective factors for targeting. Beyond those factors noted above, such as social isolation and social support, are factors pertaining to deviant and positive associations, parental bonds, bonds with schools and teachers, and the development of out-group friendships.

With respect to deviant associations, the meta-analysis found that they have a salient relationship with radicalization ( $r=.17$ ). A forthcoming *Campbell Collaboration* meta-analysis on media-effects identifies that active involvement in radical networks online has an effect of  $r=.22$  (Wolfowicz, Weisburd and Hasisi,

Forthcoming). While there is currently no evidence concerning the effect size of positive role models, there are a number of studies that indicate that they may have important protective factors. These findings are supported by strong theoretical foundations, including from criminological perspectives such as social learning theories, and psychological models of radicalization such as the 3N model.

With respect to family bonds, the systematic review and meta-analysis found that there were small differences in the effects for parental involvement ( $r=-.10$ ) and parental control ( $r=-.13$ ). Developing strong family bonds ought to be considered as part of strategies to improve family situations more generally. Indeed, some of the strategies and interventions in this review identify family issues, such as violence, as being risk factors for targeting. In this regard, the meta-analysis identified that violence in the family unit ( $r=.10$ ) and parental abuse ( $r=.13$ ) are risk factors for radicalization. Whilst Belgium's national strategy correctly identifies these family issues as in need for targeting, none of the interventions, including those that target family bonds, include a focus on such factors.

So too, with respect to the educational institution, there are small differences between factors including improved school performance ( $r=-.09$ ), school bonding/attachment ( $r=-.13$ ) and teacher bonding/attachment ( $r=-.13$ ). Teacher bonding may be especially important for facilitating school bonding. Additionally, experiences of teacher maltreatment can operate as a risk factor ( $r=.08$ ). Given that so many of the interventions identified in this review are carried out within the educational system, there is significant opportunity for improving these factors, which have small but potentially meaningful protective effects against radicalization.

With respect to out-group friendships, the meta-analysis found that they have a small but meaningful effect ( $r=-.09$ ), given that effects for protective factors are smaller overall than for risk factors. The analysis also found that the absence of out-group friendships, as measured by having similar friends, represents a significant risk factor, ranked among the top ten by effect size ( $r=.31$ ). Whilst out-group friends therefore appear to offer promise for serving as protective factors, and reducing the risk effects of having similar peers, interventions must be cautious in how they approach the issue. When not properly managed, forcing inter-group interactions can lead to increased feelings of group-based threat (National Academy of Sciences, 2017), which are known risk factors for radicalization ( $r=.31-.35$ ). In an evaluation of the community-based WORDE intervention, the only factor associated with a negative effect was the development of out-group friends (Williams et al., 2018; Mazerolle et al., 2020). Given that some interventions, such as Sweden's Tolerance Project, specifically seek to develop out-group friendships between the most 'at risk' participants, caution is warranted (Skiple, 2020).

While there are certainly many challenges to using primary-level PPP to develop positive social bonds, the successful targeting of social bonds, especially when targeting other salient factors simultaneously, such as tolerance and social connectedness, appear to offer significant promise.

## Attitudes toward others

Overall, the meta-analysis found that attitudinal factors have salient relationships with radicalization, at least relative to experiential factors and socio-demographics. Nevertheless, there is still a range of effect sizes for attitudinal factors, including with respect to those targeted by the strategies and interventions in this review. Attitudes are frequently targeted by counter-radicalization interventions because they represent the type of static factors that are most vulnerable to change (Weisburd et al., In Press). Arguably the most important attitude, and the most frequently targeted in the interventions identified in this review, is tolerance for others. While the meta-analysis did not capture any factor specifically labelled as tolerance, it did capture a number of factors that are directly related to tolerance, and which represent elements of it, including: De-humanization ( $r=.43$ ), In-group superiority ( $r=.34$ ), Political extremism ( $r=.37$ ) and Social-dominance orientation ( $r=.19$ ). Given the ways in which tolerance is usually conceptualized in the included strategies and studies, it most clearly seeks to target (de) humanization, which the meta-analysis found to have the single largest risk effect among all factors. In fact, this is explicit in the French interventions which make use of victims of terrorism in their interventions.

However, the way in which tolerance is targeted must be considered carefully. In an evaluation of the Danish program that uses former extremists to speak to students, the intervention had a small but statistically significant negative effect on political tolerance. The effect of political extremism ( $r=.37$ ) is only slightly smaller than for de-humanization of out-groups ( $r=.43$ ). At the same time, the intervention did significantly reduce radicalization. This should not be interpreted as meaning that there is no relationship between tolerance and radicalization. Rather that the delivery mode of interventions targeting risk factors can lead to mixed results (Parker & Lindekilde, 2020). Most interventions targeting tolerance do so in an education environment, and some also combine sports. One of these interventions, the More than a game sports intervention in Australia, has found that it is associated with improved tolerance (Johns, Grossman & McDonald, 2014; McDonald, Grossman & Johns, 2012).

## Norms and values

Across the strategies and interventions included in this review, some of the most frequently targeted factors pertain to democratic attitudes and values (sometimes referred to as civic values), and democratic (or civil) participation.

Some PPP view a rejection of democratic principles as being the most central risk factor for radicalization. The systematic review and meta-analysis found that anti-democratic attitudes have a moderate risk relationship with radicalization ( $r=.19$ ). Relatedly, segregationist attitudes also represent a key risk factor ( $r=.15$ ) and are specifically referred to in some of the PPPs in the review. With respect to political participation, the review found that it had essentially no relationship with radicalization ( $r=.01$ ). Similarly, the review found an exceptionally small effect for political efficacy ( $r=-.05$ ). On the other hand, there is evidence that political satisfaction ( $r=.15$ ) can serve as a meaningful protective factor. In this respect, political participation and efficacy are key to the development of political satisfaction. Additionally, political satisfaction may improve overall life satisfaction (Weitz-Shapiro & Winters, 2008), which as noted above offers a potentially significant degree of protection against radicalization. There is evidence from an evaluation of the UCARE initiative in the Netherlands of improved political efficacy, accompanied by improvements in factors relating to psychological well-being (Sklad et al., 2020).

Five of the national strategies and a small number of interventions included in the review identify the importance of improving relationships between citizens and institutions as key factors against radicalization. Specified factors include developing understandings about the importance of law and order, legitimacy for the police and other authorities, and improving confidence in government institutions. Each of these factors have known effect sizes as derived from the systematic review and meta-analysis. Here, the analysis found that the single largest effect size was for a protective factor, namely law abidance ( $r=.55$ ) which refers to a general belief of the importance of abiding by local legal norms. It also found that institutional trust ( $r=-.17$ ) was a key protective factor, whereas low legitimacy for the authorities ( $r=-.22$ ) was a significant risk factor. Considering that police are often involved in interventions, such as in the case of the Australian *More than a Game* intervention, demonstrating procedural justice, which has a known protective effect ( $r=-.08$ ) may serve to improve these factors (Johns, Grossman & McDonald, 2014; McDonald, Grossman & Johns, 2012). Some of the factors that are thought to negatively impact trust and legitimacy pertain to political grievances, especially those concerning overseas conflicts ( $r=.15$ ). Unfortunately, despite being noted in national policies from the UK, we found no evidence of interventions that tackle these factors simultaneously.

Two interventions that seek to improve conditions pertaining to trust include a focus reducing neighborhood disorder. In the Canadian intervention, neighborhood disorder was theoretically connected to the issue of trust, with respect to both community members and government agencies. There is some evidence that the intervention has led to a reduction in disorder and crime, together with improved citizens trust of authorities such as the police (Ng & Nerad, 2015). The

Flemish intervention involves having youth act as ‘monitors’ to reduce loitering of other youth, with a goal to reducing both neighborhood disorder and delinquency (Van Damme, 2019). With respect to delinquency, the meta-analysis found it to have a salient relationship with radicalization ( $r=.20$ ). The theory underpinning the Flemish intervention, that reducing unstructured time loitering ought to reduce juvenile delinquency, is supported by considerable evidence from criminology (Taheri & Welsh, 2016). While there are currently no known effects for meso level factors such as neighborhood disorder, the intervention highlights a number of parallels with interventions known to effectively combat other forms of deviance. In a recent, unpublished study, neighborhood disorder is a significant risk factor for radicalization, and also has an indirect effect through its negative impact on fear of crime and trust in the police (Wolfowicz & Gill, Forthcoming).

## Experiential factors

A number of the PPPs in this review highlight certain experiential factors for targeting, either with the goal of reducing the likelihood of citizens encountering them, or otherwise mitigating their negative effects. These factors overlap with those identified in the systematic review and meta-analysis, including experiencing violence ( $r=.07$ ) and discrimination ( $r=.08$ ). While these effects are relatively small compared to those of other factors discussed above, these experiential factors are similar to some of the socio-economic factors discussed above in that perceptions may be more important than actual experiences. In this regard, while the effects for perceived injustice are similarly small ( $r=.08$ ), the effect for perceived discrimination is almost double the size ( $r=.15$ ). While Canada, Portugal, Finland and the UK all note the importance of tackling perceived discrimination, none of the interventions included in this review target such factors. Additionally, there is no evidence concerning effectiveness from the three interventions that seek to reduce instances of discrimination.

# Discussion

Primary-level counter-radicalization is foundational to the counter violence extremism (CVE) approaches of virtually all western nations. Having developed in tandem, all counter-radicalization follow the same underlying principles, namely that targeting of risk and protective factors (mechanisms) ought to reduce the likelihood of radicalization in the general population (outcome). Despite the rapid diffusion of this approach, it remains that there is a dearth of evaluation evidence concerning primary-level counter-radicalization. On the other hand, significant developments have recently been made in research on the types of risk and protective factors for radicalization that these PPP target. Our review sought to address the gap in the body of knowledge by leveraging this evidence base, identifying and described the mechanisms (risk factors) of identifiable, government run or funded PPP considering their known relationships with the outcome of interest, radicalization. To facilitate our analysis, we drew on the results of our recent systematic review and meta-analysis of risk and protective factors for radicalization, and where appropriate, drew on other relevant literature. We also extensively leveraged evidence from a small number of evaluations that related to PPP included in the review. While we were not able to identify and investigate all the components of each intervention, or a broader set of intervention, we believe that those included in our review are representative of the type of primary level PPP that are most prevalent across western contexts. Our approach enabled us to identify that most PPP are targeting multiple factors, which is a positive approach given that risk and protective factors have cumulative and interactive effects. However, it also revealed that not all interventions are created equal.

Of all the themes contained in this review, psychological well-being and associated factors present the largest body of evaluative evidence concerning effectiveness in improving risk factors that are known to have salient relationships with radicalization outcomes. While the quality of these studies was not high, relative to the evidence concerning other factors, interventions targeting such factors appear to offer significant promise for counter-radicalization PPP. Interventions identified in this review that target factors that fall into this domain usually target multiple factors as well, which increase their potential for success.

However, as noted in the narrative review, for some factors, such as self-esteem, caution is warranted, although it has been suggested that interventions that included empathy training can mitigate the risks of iatrogenic effects (Feddes et al., 2015). Overall, given the magnitude of the relationships between the multiple, inter-related factors that fall into this domain and radicalization, interventions such as Reach Out (Australia), Citizens Programme (UK) may be looked to for examples of promising interventions. In line with our results, we would suggest that among the scarce resources available for conducting field evaluations, efforts should be made to evaluate interventions of this nature.

Among the PPP included in this review we found that they were heavily skewed toward dealing with one of four domains: 1) *Community resilience, social cohesion, and integration*, 2) *Attitudes toward others*, 3) *Norms and values*, and 4) *Personal skills*. Between these domains, the most promising strategies come from attitudes toward others and personal skills. With respect to the former, the sheer magnitude of the effects of targeted factors is among the largest of all known factors. Additionally, the focus of PPP on tolerance clearly has a number of cross-cutting priorities and objectives that can only be considered as positive. In line with our results, we would encourage that evaluation resources target tolerance-based interventions in order to identify if indeed they are having their potential effect. With respect to personal skills, whilst there is scant evidence concerning the effects for a number of factors, such as critical thinking and digital literacy, we believe that there is a clear overlap between them and factors such as self-control, thrill-seeking/risk taking, and moral neutralizations, each of which have robust relationships with radicalization. There is evidence now that life skills in general, may moderate the negative effects of poor psychological well-being, and that deficiencies in life skills increase the likelihood of moral neutralization, and radicalization (Ozer & Bertelsen, 2019, 2020). Norms and values also represent a promising set of factors for targeting, similar to attitudes toward others, the sheer magnitude of the relationships between relevant factors and radicalization indicates the potential for success. Conversely, factors targeted under *community resilience, social cohesion*, and *integration* overlap considerably with those targeted under other domains, with the exception of integration and general trust. While the former has a robust relationship with radicalization, it is questionable whether the potential iatrogenic effects that have been pointed out elsewhere would not offset any potential benefits gained by targeting this factor.

Other domains pertain more to the individual's background, circumstances and experiences. In this regard, our results suggest that PPP that promote healthy and meaningful social bonds are in fact tackling multiple risk and protective factors. Whilst individually some of these factors only have small relationships with radicalization, they are still significantly larger than those

of other factors targeted in other PPP. Additionally, there is considerable theoretical justification for the targeting of these factors, as they all relate to social bonding and control, which is known to reduce the likelihood of the development of a broad range of deviance (Wolfowicz et al., 2020). With respect to socio-economic conditions, and experiences of discrimination, improvements in these areas are unlikely to lead to significant reductions in the likelihood of radicalization as factors associated with these domains have exceptionally small relationships with radicalization. However, there is the potential for improvements in these areas to combat negative perceptions associated with disadvantage and deprivation, which do have more significant relationships with radicalization. Given that there are no known iatrogenic effects associated with such factors, and that PPP that target such factors usually do so as part of a broader set of strategies, it would seem worthwhile to continue investment in such efforts. Additionally, improvements in these domains may be more likely to bring about desired social integration.

Overall, while the results indicate that there are a number of PPP that demonstrate significant promise for effectiveness, there are also those that focus on factors which offer relatively little promise for success. However, these approaches may still serve a purpose in cross-cutting priorities between counter-radicalization and other societal needs and objectives such as the promotion of social integration, tolerance, and well-being. However, by targeting these factors under a counter-radicalization framework, in which they are unlikely to have significant effects, there is the risk of jeopardizing their effectiveness vis-à-vis these other priorities, due to the stigmatization attached to counter-radicalization (Millet & Ahmad, 2021; Pisoiu, 2012; Rahimi & Graumans, 2015).

It is also important to highlight that whilst some of the most important risk factors for radicalization are being targeted by PPP identified in this review, a number of key factors were conspicuously absent. These include, in particular, Machoism, or norms of exaggerated masculinity and misogyny ( $r=.42$ ), and authoritarianism/ fundamentalism ( $r=.25$ ). These factors are not only important in and of themselves but also have important relationships with other factors. For example, threats to masculinity may come as a result of a loss or lack of significance, unemployment, or experiences of discrimination. This can lead to attempts to reaffirm masculinity, which can lead to radicalization (Bhui, Dinos & Jones, 2012; Leander et al., 2020). This same process can also lead to the more authoritarian and fundamentalist views being embraced. Masculinity in particular has recently received considerable attention (e.g., Rottweiler, Clemmow & Gill, 2021) and has been referred to as representing a 'blind spot in mainstream radicalization research' (Jensen & Larson., 2021:430).

# Limitations

There are of course a number of significant limitations that make this assessment only speculative in nature. First, there is no guarantee that because an intervention would successfully impact one targeted factor that it would necessarily impact all other targeted factors, nor to the same degree. Second, we are unable to account for the mode of delivery, and there is a lack of evidence as to which mode of delivery is most effective in general, or as it pertains to specific factors. Another issue to consider is that protective factors are not simply the reverse or opposite of risk factors, and effect sizes for protective factors are often smaller than they are for related risk factors. This has been found to be the case for positive and negative experiences and has come to reflect what is known as the ‘positive-negative contact asymmetry’ (Barlow et al., 2012). The results from the recent meta-analysis also provide support for this with respect to radicalization. For example, the effect size for outgroup friendships (a protective factor) was almost a third of the size of the effect for having similar or deviant friends (Wolfowicz et al., 2021). As such, successfully targeting a risk factor with some known risk effect does not necessarily lead to a reduction in risk effect of an equal magnitude, and the difference of magnitude between the known risk effect and the reduction is unlikely to be similar across factors. Following from this, we were not able to fully account for possible iatrogenic effects aside from those which are already known to come about as a result of counter-radicalization interventions. Iatrogenic effects can offset potential benefits and can even lead to net-negative effects of an intervention (Welsh & Rocque, 2014).

Another significant limitation of our review pertains to language. It is known that the majority of counter-radicalization literature is produced in Europe. While many of the most important studies are published in English, governmental and organization publications, including reports and other documentation, are often only available in local languages. While we made great attempts to identify, access, and include materials produced in several languages, and the items included in the review are reflective of this, future work should consider the need for collaborations with partners from multiple countries that can help to overcome this limitation.

# Conclusions

The war on terrorism looks quite different today than it did two decades ago. Having recognized that military might alone is insufficient for ensuring domestic security, western countries have begun to focus substantial resources on combatting the radicalization that gives rise to terrorism. Despite the very large investment that democratic countries have made in de-radicalization programs, there are few rigorous evaluations that can guide existing practice. Moreover, programs vary considerably from country to country, and to date we have little evidence-based guidance for deciding upon which programs or practices to implement.

While we have few strong evaluations, this does not mean that we cannot draw conclusions regarding the potential for programs to be effective. A first step in evidence-based policy is to identify basic research that can inform program and policy development. While we do not know which programs ‘work’ from existing research, we can identify whether the logic model, or mechanism model behind programs is supported by existing studies. Drawing upon a systematic review of evidence regarding risk and protective factors for radicalization (Wolffowicz et al., 2021), our report takes this approach. We draw in our report from an approach which is sometimes called ‘realist synthesis’ (Pawson & Bellamy, 2006; Pawson & Tilley, 1997). What we are interested in is whether programs or practices target risk and protective factors that have been found to be strongly related to radicalization. In this way we were able to identify whether the logic model of existing programs is evidence based. We were also able to identify which programs appear to have the most potential for success. Of course, this approach is not a replacement for field experiments but rather it serves as a bridge between an emerging evidence base and guiding future directions in both research and PPP (Weisburd et al., In Press).

The good news in our review is that current primary-level counter-radicalization activities are targeting a broad set of evidence-based risk and protective factors. This means that programs we examined often identify mechanisms to target that have been found to be related to radicalization. And more than this, they generally target multiple risk factors. Evidence to date suggests that targe-

ting multiple risk factors may have not only a cumulative but a multiplicative impact. We think this is an encouraging finding, since it suggests that programs developed are often responsive to scientific knowledge.

At the same time, our review points to the fact that many of the most important evidence-based risk and protective factors are often ignored. For example, the role of authoritarian and fundamentalist attitudes, general forms of political extremism, misogynistic attitudes, and inter-group threats, were not targeted by any of the interventions. Additionally, promoting a general belief in the importance of law abidance was only targeted by one intervention, even though it has the largest known protective effect against radicalization. And at the same time many factors that have been found to have small relationships with radicalization are targeted by large numbers of programs. Examples include general mental health, which relates primarily to factors such as anxiety and depression, and a focus on providing welfare, which evidence currently suggests is a risk rather than a protective factor, albeit to an exceptionally small degree. This means that many programs are providing weak logic models for countering radicalization.

Finally, we found that there are a number of programs that target factors that could have iatrogenic impacts. This is particularly concerning since it means that such programs may be increasing radicalization in the targeted populations. Risk and protective factors such as integration in the context of assimilation should not be central features of counter radicalization programs. At least, such factors should only be targeted after proper consideration has been given to the cost-benefits in light of the potential for interventions targeting them to backfire.

One goal of our research was to point to programs that reflect particularly strong program models in terms of their focus on risk and protective factors. A number of programs seem to us to fit this definition: More than a Game (Australia), UCARE (Netherlands), Positive Routes (UK), and WORDE (USA). More than a game is unique in that it combines inter-communal sports together with involvement from positive role models, including professional athletes and police. The goal of the program is primarily to develop tolerance between different ethnic groups. The UCARE program in the Netherlands is an educational program that is introduced as supplementary to the regular curriculum, it too focuses on tolerance, as well as combatting feelings of inter-group threat. Positive Routes is a community engagement program run by a London-based Islamic organization. It uses social education and community activities (including sports) to engage with members of diverse communities. In addition to promoting tolerance the program seeks to improve psychological well-being and help youth to develop coping skills. The WORDE program, which has been implemented in Montgomery County in the US state of Maryland, seeks

to reduce inter-group tensions and at the same time counter criminogenic factors, such as elements of low self-control and the legitimization of violence. These programs focus on strong risk factors and do so in the context of including multiple other factors as well. The evidence is that these are the types of programs that have the most promise.

At the same time, evaluation research remains the most pressing gap in the field of counter-radicalization. And while there are certainly challenges involved in evaluations, especially when it comes to primary-level interventions, as demonstrated by some of the items included in this review, it is possible. Additionally, collaborations between those operating official PPP and academia could help to design and develop appropriate evaluations, even if they are post hoc. While the results produced by this approach are promising, they also identify that there is still considerable work to be done until we can identify ‘what works, for whom, and under what circumstances’ in counter-radicalization, and move toward a truly evidence-based approach.

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Counter-radicalization has become part and parcel of the counter-terrorism strategies of virtually every western nation. Most counter-radicalization efforts build on the assumption that targeting specific risk and protective factors can reduce the prevalence of radicalization among the general population and thereby reduce the risk of terrorism. Yet, despite the rapid diffusion of counter-radicalization interventions and the significant investments that democratic countries have made in them, few rigorous evaluations have been carried out to guide existing practice. Even with policies, practices, and programs in place for close to two decades, it remains unknown whether they are at all effective.

This study reviews counter-radicalization strategies and interventions funded by governments or carried out under their auspices. They map out the risk and protective factors specified and identify the degree to which they are evidence-based.

The review finds some promising results, but it also indicates that many interventions target factors with minimal relationships with radicalization.

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