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Cutting through complexity

Evaluating countering violent extremism (CVE)

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3 Lessons from a Realist Review of Countering Violent Extremism⁹: Development of Refined Heuristic Guidelines for Complex Social Programmes

3.1 Introduction

The previous chapter applied realist review, for the first time, to a programme aimed at countering violent extremism, and also provided a realist synthesis of existing CVE evaluation studies. The analysis demonstrated that the realist review method, developed by Pawson (2002b, 2005, 2006), is an appropriate technique for evaluating single interventions, as well as that the principles of realistic evaluation can be used to conduct a meta-analysis of existing evaluation studies. This latter is called ‘realist synthesis’ or ‘realist review’.

While realist review was developed for evaluating different types of complex social programmes (Pawson, 2005), it has been applied mostly in the healthcare sector. Of all the realist reviews conducted since the origin of the method, most have been published in journals such as *BMJ Open*, *Social Science & Medicine*, *BMC Health Services Research* and *BMC Public Health*.¹⁰ This makes sense, as realist review was developed in the healthcare field as an alternative to the systematic reviews so commonly used in the medical domain. Such systematic reviews are typically anchored in randomized controlled trials and measure outcomes in terms of mean effect sizes. Healthcare is, in fact, renowned for being ‘evidence-based’, entailing “the conscientious, explicit, and judicious use of current best

⁹ This chapter expands on the secondary analysis of the realist review of CVE evaluation studies presented in Gielen (2017a) and chapter 2. This chapter zooms in on the methodology and heuristics of conducting realist review, which was not included in the 2017a publication.

¹⁰ A search for ‘realist review’ in CataloguePlus, which includes databases such as OneFile, Medline/PubMed, JSTOR Archival Journals, SAGE Publications, SAGE Journals and many more databases, revealed 637 relevant studies published mainly in healthcare journals. Most realist reviews were published in *BMJ Open* (98), closely followed by *Social Science & Medicine* (68) and *BMC Public Health* and *BMC Health Services* (both 44). The realist reviews published in *Implementation Science* (50) were also mostly healthcare related.

evidence in making decisions about the care of individual patients” (Sackett *et al.*, 1996: 71). Evidence tends to be abundantly available in the healthcare domain, via medical databases such as Index Medicus, MEDLINE and PubMed. This evidence, furthermore, is rigorously reviewed and synthesized in the international database of the Cochrane Collaboration, with the aim of improving evidence-based healthcare decision-making.

Yet, the realist review method has also, although scarcely, been applied to other fields, for instance to crime prevention. However, as Pawson (2005) notes, the realist review method requires adaption and innovation to address the widening range of complex social programmes (Pawson, 2006: 93–96 in Pawson & Manzano-Santaella, 2012). This need for further development to accommodate increasingly complex programmes was also pointed out by Betts (2013). Her realist review of aid effectiveness and governance reforms in developing countries concluded that broad and diverse programmes and interventions require a more systematic approach to data extraction. This also raises the question of how to conduct such a review correctly. Pawson and Manzano-Santaella (2012) pointed out that while the realist review method is becoming more accepted and applied, the essence of realist review does not always seem to be followed and understood. They counted more than 100 realistic evaluations and some twenty studies that had been published as realist reviews. Yet, their analysis revealed that few were truly realist in nature, in the sense that they had an explanatory focus and actually investigated contexts, mechanisms and outcomes *in configuration* (*ibid.*: 177).

This brings us to the following questions, which this chapter seeks to answer: (1) How can realist review be conducted correctly, respecting the realist methodology? (2) To what extent can the realist review method be applied to complex social programmes outside the medical domain, particularly in fields where, in stark contrast to the medical field, evidence in the form of evaluation studies and reviews is less abundant or even lacking?

This chapter begins by providing heuristic guidelines for the conduct of realist review. Essentially, a detailed step-by-step guide is given for the conduct of realist review, going beyond the above-mentioned six broad steps to realist review. These heuristic guidelines are necessary because detailed descriptions of how to conduct realist review are scattered across different publications. The heuristic guidelines in this chapter therefore synthesize Pawson and colleagues’ theoretical and empirical work. Afterwards, the chapter examines whether the realist principles and heuristic

guidelines for realist review can be successfully applied to such complex social programmes as are common in the CVE field. It does this by presenting a secondary analysis of my realist review of CVE evaluation studies in the previous chapter (see also Gielen, 2017a). Rather than focusing on the contexts, mechanisms and outcomes of the CVE evaluations, this secondary analysis provides a methodological reflection on how the review in the previous chapter was conducted, what challenges arose and how they were dealt with. This methodological reflection provides the basis for adapted and advanced heuristic guidelines for realist review for application of the method to evaluate complex social programmes like CVE.

3.2 Heuristic guidelines for realist review of complex social programmes

According to Pawson (2006), realist review follows the six steps of the Cochrane reviews. The Cochrane library is a global database of systematic meta-analyses of interventions in the healthcare sector. The purpose of the Cochrane database is to improve evidence-based healthcare decision-making. Pawson (2006: 41–42) summarized the six steps of the Cochrane review as follows: (i) clarifying the scope of the review, (ii) searching for primary studies, (iii) appraisal of quality, (iv) extracting the data, (v) synthesizing the data and (vi) disseminating the findings. Realist review differs from the traditional Cochrane review in several ways. For instance, it does not focus on ‘what works’ or on translating outcomes into mean effect sizes, but explicitly takes contextual factors and mechanisms into account. Closely related, a realist review cannot be standardized or reproduced in the sense that a Cochrane review can. Instead, realist review is explorative and iterative in nature (*ibid.*: 91–94).

The six steps for realist review are elaborated in different publications: primarily Pawson's 2006 book, *Evidence-based Policy: A Realist Perspective*, but also in other works by Pawson and colleagues (Pawson *et al.*, 2005; Pawson & Manzano-Santaella, 2012; Wong *et al.*, 2010; Wong *et al.*, 2012) and in the RAMESES realist review publication standards (Wong *et al.*, 2013). Each publication provides valuable insight into what realist review precisely entails and how it should be conducted. However, because the insights are scattered across several different publications a general overview and step-by-step guide for realist review is lacking. This might explain why, as Pawson and Manzano-Santaella (2012) concluded, so many realist reviews have been conducted incorrectly.

Table 3.1 presents a synthesis of the different realist review steps discussed in the previously mentioned literature. This synthesis provides heuristic guidelines for realist review. These heuristic guidelines should not be considered a technical checklist for realist review, as the iterative nature of realist review makes such a checklist impossible. Rather, they should be read as more detailed guidelines on how to conduct a realist review.

Table 3.1: Heuristic guidelines for realist review. Adapted from Pawson *et al.* (2005), Pawson (2006), Pawson and Manzano-Santaella (2012), Wong *et al.* (2010), Wong *et al.* (2012) and Wong *et al.* (2013)

<p>1. Clarify the scope of the review</p> <p>a) <i>Rationale for review:</i> Why is a realist review necessary? Why is realist review the most appropriate method? Why is the particular unit of analysis for review 'complex'? Does the programme meet the seven characteristics of complexity? What will this review contribute to the current understanding of the subject?</p> <p>b) <i>Objectives and focus:</i> State the aim of the review and review questions. Review questions should be explanatory and revolve around one or more of the following questions: what works, for whom, how, in what circumstances and why?</p> <p>c) <i>Scoping the literature:</i> Scope the literature for programme theories (not necessarily empirical evidence on the programme theories). Provide a description and justification of the preliminary scoping phase of the literature. Indicate what search words were used and which databases and literature were examined, for example, was only peer-reviewed literature examined, or were for example policy documents also included.</p> <p>d) <i>Development of a theoretical model:</i> Identify and categorize theories on how the programme or intervention is supposed to work. Prioritize theories and explain why certain theories are considered more important than others. Develop a model with explanatory middle-range hypotheses that speculate on configurations between context, mechanisms and outcomes.</p> <p>2. Searching for primary studies</p> <p>a) <i>Collect evidence by searching for primary studies:</i> Primary studies can include peer-reviewed literature or policy documents, but should provide empirical evidence on the programme theories under investigation. Studies can be collected via databases, by contacting individuals familiar with the literature and by snowballing (handpicking studies mentioned in studies already found). If sufficient primary studies cannot be found within a domain, branch out to other domains.</p> <p>b) <i>Provide details on the search for primary studies:</i> Details should be provided of the accessed electronic databases, such as the names of the databases, search terms and dates of the search. If individuals were contacted, indicate how they were identified and selected.</p> <p>3. Quality appraisal</p> <p>a) <i>Assess relevance:</i> Does the primary study fit the scope of the review? What inclusion and exclusion criteria were used?</p> <p>b) <i>Assess rigour:</i> Does the study help in clarifying the explanatory challenge of the review?</p>

- c) *Create a document flow chart:* Provide details on the number of documents found, assessed and included and excluded in the review with reasons for exclusion at each stage.

4. Extracting the data

- a) *Extract data:* Provide a description and explanation of how data or information was extracted from the included evaluations and justify this selection process. Note taking and annotation are important during the process of data extraction.
- b) *Provide information on the characteristics of the documents included in the review.*

5. Synthesize evidence

- a) *Analysis and synthesis processes:* Provide a detailed description of the analysis and synthesis process in which the quality of the evidence is reviewed and compared. Then examine the data on relevant outcomes and on the supporting and contradictory evidence associated with the original programme theories. Conduct a final search to seek out additional studies and fine-tune the synthesis. Often, revised programme theories emerge in the course of the review, after testing these further, a more refined programme theory may be developed.

6. Disseminate the findings

- a) For publication in academic journals, the RAMASES publication standards should be followed.
- b) For dissemination of findings in a policy arena, presentation of the results should not take the form of mean effect sizes of a specific programme or intervention. Rather, they should be presented as policy recommendations, such as ‘remember X’, ‘beware Y’ and ‘take care of Z’.

3.3 Applying realist review to CVE

This section applies the heuristic guidelines for realist review to CVE and discusses the challenges that arise when employing realist review in a field as complex as CVE. The discussion pertains to the realist review of CVE studies presented in chapter 2. In that review, different types of CVE evaluation studies from around the globe were identified via a literature search and then analysed. The aim of the analysis, which was published in *Terrorism and Political Violence* (Gielen, 2017a), was to gain a better understanding of what types of interventions are considered CVE and what we can learn from studies of the various types of CVE interventions. The present chapter extends Gielen (2017a), by reflecting on how the heuristic guidelines for realist review (Table 3.1) were applied to reach these findings, and how and when the complexity of CVE required the heuristic guidelines to be adapted.

3.3.1 Step 1: Clarify the scope of the review

Rationale for review

First of all, an argument needs to be provided as to why realist review should be applied. First and foremost, the primary reason to apply realist review to CVE is the complexity of CVE, and the unsuitability of 'regular' review methods to deal with that complexity. The unsuitability of the systematic review was illustrated by the German National Centre for Crime Prevention (*Nationales Zentrum für Kriminalprävention – NZK*). That organization identified eleven evaluation studies of seven different German CVE interventions of which the methodological level was considered low and hardly any information was provided on the effectiveness of the CVE measures (Kober, 2017). As a consequence, it is almost impossible to draw any conclusions as to whether the CVE intervention projects were able to prevent violent extremism or were actually ineffective (*ibid.*). Thus, we are in need of a review method that can deal with the scarceness and heterogeneity of CVE evaluation studies.

We also need a review method that can deal with the complexity of CVE. To assess the complexity of a social programme, Pawson (2005: 22-23) described seven characteristics of complexity. Applying them demonstrates that CVE can indeed be considered a complex social programme. First, there is no single recipe for success in countering violent extremism. Programmes always consist of multiple interventions, each with their own *theories* on why they might contribute to countering violent extremism. For example, educating young people is often part of a CVE programme. Education consists of several mechanisms, each with its own theory and contribution to CVE, such as stimulating critical thinking, providing an alternative to an extremist narrative and creating resilience against different forms of violent extremism. Second, CVE can only have effect via the *active input of stakeholders*, including practitioners (youth workers, psychologists and community policy officers) and the target audience. This is closely associated with the third property of complexity, that the intervention follows a *long policy chain*. Moreover, the way a CVE programme is *intended* does not always correspond to the way the programme is actually *interpreted*. It is useful in this regard to keep in mind the examples of community engagement-focused CVE programmes. In one of these, government agencies sought to establish a trust-based relationship with key figures from minority and religious communities, but their advances were in fact interpreted as being

targeted as a 'suspect' community (Vermeulen, 2014). Fourth, CVE is *non-linear*, as politicians, policymakers, practitioners and the target audience (individuals, communities) all influence and affect implementation. If, after a terrorist attack, politicians claim 'we are at war', this will affect, for example, community engagement programmes that are part of a CVE strategy. CVE is highly *context-dependent*, which is the fifth feature of complexity. For example, radio programming against violent extremism is more likely to work in Mali, where there is little access to media other than radio, compared to the digitalized West with its diversity of media resources (Aldrich, 2014; Gielen, 2017a). Sixth, CVE programmes are often based on an *exchange of ideas*. In Europe, this has been stimulated via the Radicalisation Awareness Network (RAN), in which thousands of practitioners and policymakers exchange best practices in CVE. The effect is that many countries and cities have borrowed parts of their CVE programmes from elsewhere. A German telephone hotline and support for families of foreign fighters, for instance, have been exported to many countries, including the Netherlands, Austria and France. Family support programmes are now an integral part of CVE programmes across Europe (Gielen, 2015a). However, each country has introduced some 'couleur locale' to its own programme. As a consequence, family support programmes across Europe differ from the German original. Finally, complexity entails that the conditions and mechanisms that make a CVE programme work can *change over time*, in both intended and unintended ways. For example, frontline practitioners often receive awareness-raising training with 'checklists' on how to signal violent extremism. The mechanism behind the awareness raising is to ensure that frontline practitioners know how to recognize and act on (potential) violent extremism. However, violent extremists have become savvy and are also familiar with the checklists. ISIS even has special manuals to instruct potential foreign fighters on how not to get caught; it advises them, for example, to shave their beard before travel.

In sum, CVE is a theory, based on an exchange of ideas; it follows a long policy chain, is non-linear, context-dependent, active and can change over time. CVE is thus a highly complex programme which warrants a realist review.

Objectives and focus

A key realist principle is that the review should always be exploratory. The true realist and explorative question 'what works, for whom, how and in what circumstances', however, is too ambitious in CVE. Answering it would require us to completely understand what CVE precisely is, including what

interventions can and cannot be classified under this umbrella concept. We would also need an understanding of what theories underlie these interventions and enough evaluation material to draw on to further investigate the many different theories. The previous section's characterization of CVE as a wicked and complex problem underlines the lack of a proper understanding of what CVE precisely entails in the first place. As such, the focus of the review is to get a better sense of what the wicked and complex topic of CVE entails. It is possible to remain true to the realist paradigm by focusing on the following research questions:

- What programmes and interventions are considered to be countering violent extremism?
- In what contexts are CVE measures implemented?
- What are the underlying mechanisms of CVE programmes and interventions?
- What outcome patterns are generated by these mechanisms?

Scoping the literature

The literature was scoped using the Social Citation Index, 'CataloguePlus' (which includes all main databases) and Google Scholar. Initially only the search words 'CVE' and 'evaluation' were used, and both scientific articles and policy documents were examined. This inspection revealed however that CVE is a catch phrase for all sorts of activities related to the prevention or countering of radicalization, extremism and violent extremism at the individual, group and community level. So while the scoping phase did not enable us to draw out a dominant theory, it did expose the broad spectrum of CVE. Essentially it is a new, trending word for preventing violent extremism (PVE), deradicalization and countering radicalization as well as prevention of violent extremism. Thus, this scoping process was highly relevant in helping us to identify relevant search words of value in the second phase of the realist review: finding evaluations to be included in the review.

Development of a theoretical model

The last step of the initial scoping phase was development of a middle-range theoretical model that suggests hypotheses on configurations between contexts, mechanisms and outcomes. However, this was based on the assumption that the scoping had led to the dominant programme theories that could be tested. Due to the objectives and focus of our review and the results of the scoping phase, it was not possible to develop a hypothesized middle-range theoretical model in the first step of the review. Instead, a conceptual CVE model was developed. That model was based on a

prevention classification system previously used in the healthcare domain, and still employed in criminology, aiming to eliminate risk factors and enhance protective factors (Gielen, 2008; cp. Harris-Hogan *et al.*, 2016). This conceptual model of CVE entails three elements (Gielen, 2017a; Gielen, 2017b):

- Primary prevention. Broad prevention activities are concentrated on eliminating the breeding grounds and root causes of violent extremism and increasing protective factors against violent extremism. This is generally done via group activities (often via education) concentrating on citizenship, resilience, positive identity formation and community engagement. In this prevention phase it is also important that practitioners be properly trained to signal vulnerable, at risk individuals (*ibid.*).
- Secondary prevention. This element is more individually-oriented, focused on vulnerable individuals and individuals who are already in a radicalization process but have not committed criminal offences, such as people who are considering travelling to Syria to join ISIS. Interventions in this phase are directed toward extremist *views* and risk factors and to preventing these from leading to radical *behaviour* (e.g., violent extremism). This form of prevention is often tailor-made for the individual in question. Mentoring is an intervention often applied at this stage, in combination with interventions seeking to influence the social context of the individual, for example, through family support or by providing an alternative network. This requires multi-agency support (*ibid.*).
- Tertiary prevention. The emphasis of tertiary prevention is also on individuals, but the focus is on curative interventions for those who have actually turned to *violent* extremism, such as foreign fighters. The objective of tertiary prevention is abandonment of the violent extremism path. This can be achieved via different means and with different goals. Reintegration and rehabilitation efforts tend to focus on achieving a form of ‘normal life’ via schooling or work. Disengagement concentrates on changing the extremist behaviour and aims for the cessation of violence. Deradicalization is concerned with changing extremist attitudes and rejection of the violent extremist ideology. Disengagement and deradicalization are often realized through ‘exit programmes’. Exit programmes are tailor-made and involve multiple interventions, such as mentoring, practical and socio-economic support, ideological and religious counselling, family support, psychological support and providing an alternative social network (*ibid.*).

3.3.2 Step 2: Searching for primary CVE studies

Within a highly complex field like CVE, the scoping phase is an opportunity to conceptually grasp the issue, which helps in the next step: the search for primary studies. Three databases were searched for studies related to countering violent extremism and evaluation: the Social Sciences Citation Index, 'CataloguePlus' (which includes all the main databases, e.g., the Social Citation Science Index, SAGE, Taylor & Francis Online, Academic Search Primer) and Google Scholar. Following the findings of the scoping phase, in addition to 'CVE' + 'evaluation', search words included 'countering violent extremism', 'CVE', 'violent extremism', 'preventing violent extremism', 'prevention of violent extremism', 'radicalization', 'deradicalization' and 'countering radicalization' in combination with 'evaluation' or words related to evaluation, such as 'impact' and 'effectiveness'. The search period was from September 2001 until March 2016, as most CVE policy was developed after the 9/11 attacks and onwards (Gielen, 2017a). The search produced 109,886 citations, which required a process of quality appraisal (step 3).

What is not taken into account in the heuristic guidelines for realist review is how to keep the review up to date. CVE is a fast-developing field. More and more research is being undertaken on the topic. This means that a review of the field quickly becomes out of date, particularly as lengthy peer review processes may precede publication of such a review in an international peer-reviewed journal. In the case of Gielen (2017a), the review process took more than a year. During that year, the domain of CVE really took flight, and many more CVE studies *and* evaluations became available – a point that was quite rightly made by the anonymous reviewers. However, simply updating the draft article by adding the important new studies mentioned by the reviewers would be counter to the concise and systematic approach prescribed by realist review for the search for primary studies. As a consequence, a new search for primary studies had to be set up, this time including the period from 1 March 2016 to 1 March 2017. This led to an additional 50,061 citations which were subjected to the same quality appraisal process described in step 3. This illustrates how rapidly the CVE evaluation field is developing. It also means that a realist review of CVE is never finished. However, the knowledge accumulated based on the primary studies up to 1 March 2017 can provide a starting point to incorporate more recent studies.

3.3.3 Step 3: Quality appraisal

In accordance with the principles of realist review, the citations were assessed for relevance and rigour. A number of inclusion and exclusion criteria were formulated. Relevant studies were initially taken as those that provided effect evaluations of existing CVE or PVE or counter-radicalization programmes or interventions. No exclusion criteria were formulated on geographical scope, as the realist review method suggests that we can learn as much from a deradicalization programme in Singapore as from a community engagement programme in the UK. However, studies that focused completely on counterterrorism measures, such as freezing finances, waterboarding and surveillance, but not the prevention and countering of violent extremism, were excluded from the review (*ibid.*: 5). This was because findings from the scoping phase indicated that these were considered counterterrorism measures and not countering violent extremism. Additionally excluded were studies that only looked at processes of radicalization or violent extremism, without providing insight into how they should be countered and studies that lacked any form of methodology (*ibid.*). With respect to the assessment of rigour, the studies were not judged in terms of how much they contributed to a specific explanatory challenge, but rather whether they provided insight into what CVE entails, in what contexts CVE measures are implemented, what the underlying mechanism are and what outcome patterns are generated by these contexts and mechanisms?

In most realist reviews, evaluations are abundant and realist scholars thus have to carefully select which studies to include. However, while there were many relevant hits for the search words noted above, my first analysis revealed that actual empirical evaluations of CVE interventions or programmes were highly limited. Despite the more than 100,000 hits in the first search phase, only eleven studies were identified that could be considered 'effect evaluations'. These eleven studies attempted to assess impact or effectiveness with the target audience of specific CVE interventions or programmes, using qualitative or quantitative research methods or a combination of the two. Three studies, of which two were quasi-experimental, used a quantitative methodology. The remaining eight studies were qualitative in nature, based for example, on interviews, participant observation, focus groups and desk research. The studies were very heterogeneous in that they covered individual mentoring programmes, group-based resilience programmes and even the community-level effects of national programmes.

Due to the limited number and heterogeneous nature of the eleven studies, the larger set of full texts obtained were re-analysed using less strict exclusion criteria. To be included in the selection, the studies no longer necessarily had to be an effect evaluation, but could also be a process evaluation or theory-driven research focused on how violent extremism might be countered. Primary studies were not judged in terms of how much they contributed to a specific explanatory challenge, but rather by whether they provided insight into what CVE entails. Process and theory-driven evaluation can be very helpful in that sense. While these types of evaluations do not provide the 'O', they can give valuable information on configurations of contexts (C) and mechanisms (M). This search with less strict exclusion criteria produced a total of 41 relevant studies.

As noted, my initial realist review of CVE evaluation studies became outdated between submission and review of the article for publication. Indeed, important CVE evaluation studies were published in 2016 and early 2017. Thus, a new search was conducted, this time including the period 1 March 2016 – 1 March 2017. This led to the aforementioned addition of 50,061 hits. These hits were screened on the basis of the same inclusion and exclusion criteria applied earlier. This produced an additional 32 relevant studies, for a total of 73 studies. Fourteen of these studies can be considered 'effect evaluations'. Although some authors did not consider their own study an effect evaluation, due to the lack of control groups (randomized or not) or an absence of pre- and post-measurements, these 14 studies are labelled effect evaluations here, as they attempted to assess impact or effectiveness among a target audience of specific CVE interventions or programmes. These evaluations used a range of methodologies. Four used a quantitative methodology (of which two quasi-experimental); nine studies were qualitative in nature (conducted through, e.g., interviews, participant observation, focus groups and desk research); and one study applied a combination of methods (i.e., theory, surveys and focus groups). The review also revealed 14 studies that could be considered 'process evaluations'. These focused on the implementation and output of a specific CVE intervention or programme, using methods such as interviews with stakeholders (e.g., policymakers and practitioners) and document analysis (Gielen, 2017a).

The remaining studies were theory-driven in the sense that they drew on the radicalization and deradicalization literature (often based on empirical studies with the target audience) or other bodies of literature, such as psychology, the literature on gangs and cults and experiences of practitioners,

to assess what these might teach us for effective CVE measures and policies. These studies did not claim to offer policy evaluations in the sense that they provided positive or negative effects of interventions. Rather, they offered critical discussions of effectiveness in light of new or established scientific theory or empirical data (*ibid.*).

Part of the realist review is that no hierarchy is attributed to the different evaluations. Instead, the review applies the premise that each study can provide valuable information on contexts, mechanisms and outcomes in countering violent extremism. Figure 3.1 outlines the search and appraisal process in a flow chart.

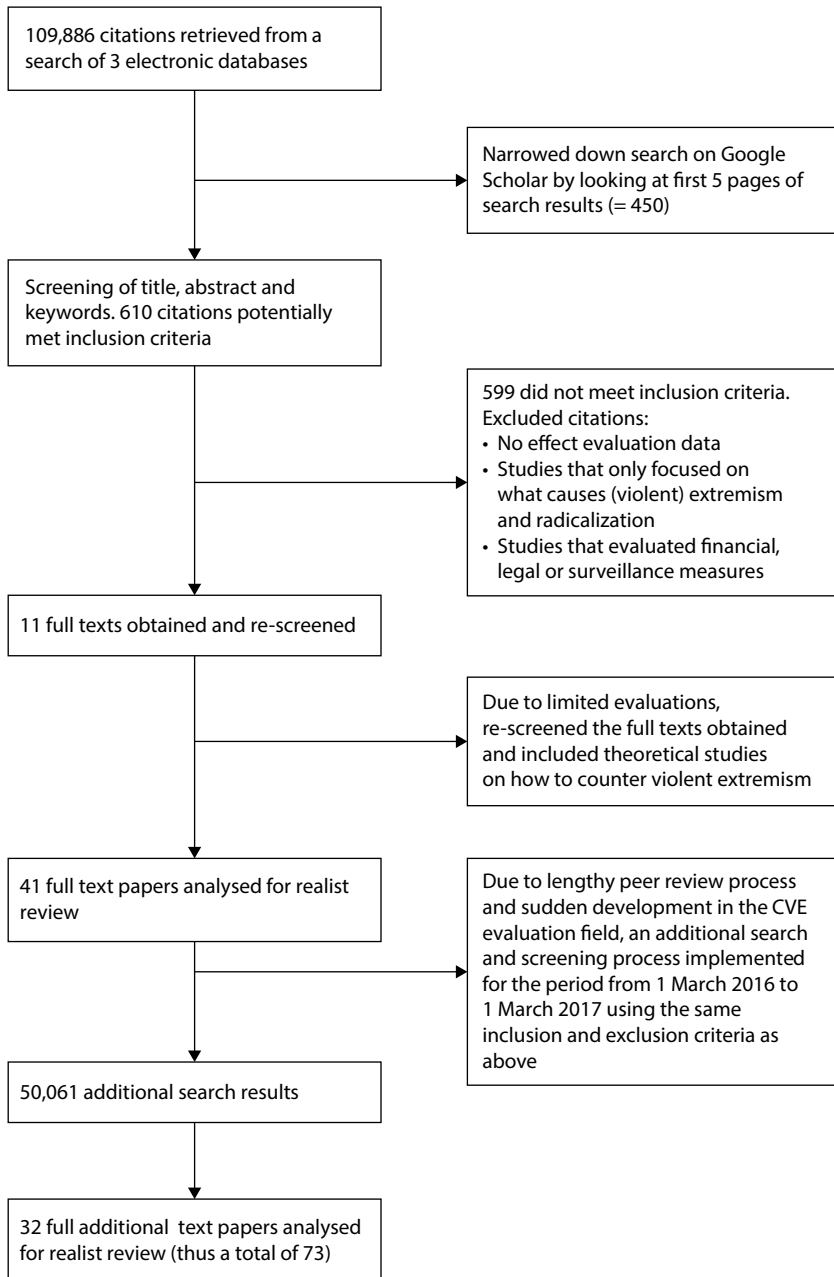
3.3.4 Step 4: Extracting the data

The realist review thus produced 73 relevant evaluation studies addressing a wide range of interventions and programmes, such as increasing resilience (in many different forms), CVE programmes in general, deradicalization and disengagement programmes, different forms of counter-communication, and programmes and interventions aimed at families around the globe and utilizing many different evaluation methods. The aim and focus of the review, in combination with the diversity of programmes and interventions addressed in the 73 studies, thus required a more systematic approach for extracting the data than the interpretive and non-replicable trail advised by Pawson (2006). The following six aspects of the primary studies were analysed (Gielen, 2017a):

- type of evaluation (if effect, what type and what methods; or process or theory-driven);
- type of intervention (CVE programme or single CVE intervention such as mentoring or family support programme);
- aim of the programme or intervention;
- description of the programme or intervention (e.g., target group and theory of change);
- outcome (positive and negative effects, side effects); and
- lessons learnt.

The latter four aspects were meant to draw out relevant C-M-Os, as only two of the 73 evaluation studies had applied the C-M-O model. It was impossible to summarize all of the extracted data in a matrix. Instead, the primary studies were presented in a table mentioning (1) the authors of the CVE evaluation study; (2) the type of programme they evaluated (a CVE programme in general or a specific intervention such as counter-narratives) and (3) the method used for the CVE evaluation study.

Figure 3.1: Flow chart of screening process for primary studies as part of the realist review



3.3.5 Step 5: Synthesizing the CVE studies

The fifth step of the review was to refine the programme theory that was developed in the first phase of the review: determining what works, for whom, how and in what circumstances (Pawson, 2006). However, the previous steps showed that CVE programmes and interventions are heterogeneous and scattered across a very broad policy spectrum. Due to a lack of evaluations in the CVE field, it was impossible to compare programme theories to determine what works, for whom, how and in what circumstances. As a consequence, synthesizing the data did not lead to a C-M-O model for how all the different CVE contexts, mechanisms and outcomes work in configuration. The possibilities would be endless, and without sufficient evaluations, no specified claims could be made about the different CVE interventions. The data from the studies was therefore synthesized by clustering the programmes and interventions and describing relevant contexts, mechanisms and outcomes separately. The final result was an unconfigured CVE model describing different types of programmes and interventions, alongside their underlying context, mechanisms and outcomes. This is presented in table 3.2.

Table 3.2: CVE contexts, mechanisms and outcomes unconfigured. Derived from the 73 CVE evaluation studies.

Contexts of CVE		Mechanisms of CVE		Outcomes of CVE	
C1	Individuals in one-to-one setting	M1	Mentoring to increase increase empathy, confidence, relationship skills and the ability to reflect on one's actions and life history	O1	Prevention of the breeding ground for radicalization
C2	Individuals in group setting	M2	Social and economic support to create a stable environment with a daily routine to create and sustain reintegration and rehabilitation	O2	Safeguarding individuals at risk
C3	Families	M3	Religious or ideological counselling to reduce the attraction of the extremist narrative	O3	Prevention of travel to a conflict zone
C4	Practitioners	M4	Alternative narratives to reduce or dispel the extremist narrative	O4	Disengagement (changing behaviour to dissuade from violence)
C5	Communities	M5	Psychological support and counselling to deal with existential questions, making sense of things and finding a meaningful place in society	O5	Deradicalization (the rejection of the extremist ideology)
C6	Pre-radicalization	M6	Education on citizenship, (digital) media literacy, prejudice and stereotyping and violent extremism to enhance critical thinking skills and increase resilience of young people	O5	Reintegration (the achievement of 'normal life')
C7	Vulnerable at risk	M7	Family support, parental coaching and awareness raising to help parents identify early-warning signals, stimulate positive parenting styles by reducing the attraction of extremist groups and enhancing protective factors		
C8	Radicalized	M8	Training and awareness raising for practitioners, information-sharing protocols and capacity building for key institutions to increase support available for vulnerable individuals		
C9	Violent extremists	M9	Training, awareness raising and capacity building for communities and peers to increase community resilience and identify and support vulnerable individuals		
C10	Governmental organizations	M10	Engagement between communities and key institutions such as police, social services and other (local) officials to improve and sustain trust-based relationships between communities and institutions		
C11	Non-governmental organizations				
C12	Voluntary				
C13	Compulsory				
C14	Trust				
C15	Transparency				

3.3.6 Step 6: Dissemination of findings

The final step of the realist review was deriving policy recommendations and disseminating these in the policy arena, in forms such as 'remember mechanism X', 'beware of context Y' and 'take care of Z' (Pawson, 2006; Gielen, 2017: 16). But in this phase no refined programme theory could be produced. However, the developed synthesized model could provide a starting point for new reviews zooming in on specific programmes and interventions, such as mentoring and community engagement, and also offer a starting point for branching out to other bodies of literature in which evaluations are available.

3.4 Adapted heuristic guidelines for realist review for complex social problems

The above exercise demonstrates how realist review can be applied to the CVE field and that such a review can be helpful in gaining a better understanding of the different types of contexts, mechanisms and outcomes that fall under the conceptual umbrella of CVE. However, application of the realist review method and the heuristic guidelines did pose some challenges. These challenges cannot be attributed solely to the complexity of CVE, but rather apply to all complex social programmes with the following characteristics:

- The complexity of the problem implies a nearly endless array of unique interventions, each with multiple underlying mechanisms and contextual conditions; in short, the set of C-M-O configurations is vast.
- The complexity of the problem and its solution(s) results in a lack of evaluations. This leads to a limited set of primary studies that address different programmes and interventions consisting of multiple theories, and thus making it impossible to draw out dominant theories.
- The diverse nature of the studies requires a systematic approach to data extraction.
- Rapid development of the field creates the risk of a review soon becoming outdated.

The above-mentioned challenges require that the current heuristic guidelines for realist review be adapted. These adaptations will be applicable beyond complex programmes such as CVE, to other fields that are similarly challenged by a lack of evaluation studies and heterogeneous programmes and interventions. Table 3.3 presents an overview of the extent that the heuristic guidelines for realist review require adaption in order to be suitable for other complex social programmes.

Table 3.3: Adaption of heuristic guidelines for complex social programmes with heterogeneous interventions and a lack of evaluation studies

1. Clarify the scope of the review

- a) *Rationale for review:* Follow the original guidelines.
- b) *Objectives and focus:* The research question still has an explanatory focus, but seeks to draw out relevant contexts, mechanisms and outcomes instead of testing and comparing different theories.
- c) *Scoping the literature:* The scoping phase should be used as an opportunity to conceptually grasp the complexity of the social programme and gain a better understanding of the underlying interventions. The results of this scoping phase will be relevant in the second stage of the review, the search for primary studies, as it provides insight on what search words should be used.
- d) *Development of a theoretical model:* Developing a theoretical model for what works, for whom, how and in what circumstances is impossible in this scoping phase. It is only possible to develop a conceptual model of what the complex social programme (and all its underlying interventions) involves.

2. Searching for primary studies

- a) *Collect evidence by searching for primary studies:* Primary studies do not have to provide empirical evidence on the programme theories under investigation. They should provide insight on what the complex social programme entails, specifically the underlying interventions and the relevant contexts, mechanisms and outcomes.
- b) *Provide details on the search for primary studies:* Follow the original guidelines.

3. Quality appraisal

- a) *Assess relevance:* If there is a lack of evaluations on the social programme under investigation, the inclusion criteria for primary studies should be less strict. Besides qualitative and quantitative effect studies, process evaluations and theory-driven studies should also be included.
- b) *Assess rigour:* Does the study help in gaining a better understanding of CVE, an underlying intervention and C-M-O patterns?
- c) *Create document flow diagram:* Follow the original guidelines.

4. Extracting the data

- a) *Extract data:* Use a more systematic approach to extract the data, such as by type of intervention, aim of the programme or intervention, description of the programme or intervention (e.g., target group and theory of change), outcomes (positive, negative, side effects) and lessons learnt.
- b) *Provide information on the characteristics of the documents included in the review:* Follow the original guidelines.

5. Synthesize evidence

- a) *Analysis and synthesis processes:* Provide a detailed description of the analysis and synthesis processes, by developing a more refined theoretical model of the complex social programme in which different interventions and their C-M-O patterns are described.

6. Disseminate the findings

- a) For publication in academic journals that are unfamiliar with the realist review method, it may be impossible to fully conform to the RAMASES publication standards. Rather than describing each (iterative) step in detail, a brief description should be provided of how the study abides by the principles of realist review.
- b) For dissemination of findings in the policy arena, follow original guidelines, but also present the more refined theoretical model of what the complex social programme precisely entails.

3.5 Conclusion

This chapter investigated how realist review should be undertaken correctly and if and how realist review can be applied to a complex social issue outside the healthcare sector, in which realist review has already been regularly applied. The chapter presented heuristic guidelines for realist review synthesizing the theoretical and empirical work on realist review by Pawson and colleagues. These heuristic guidelines were applied to CVE. Countering violent extremism is an apt example case because (i) violent extremism is considered a wicked and complex problem; (ii) the complex phenomenon of violent extremism and the solution to it, in the form of CVE, are highly contingent; (iii) CVE is a field challenged by a lack of evaluations, and realist review claims to offer a suitable solution to that challenge; (iv) theories on violent extremism and CVE are still developing; (v) the systematic review method proved unsuitable for the field, due to the lack of evaluations and particularly the heterogeneity and poor methodology of those CVE evaluation studies that are available; and (vi) the application of realist review to CVE is unprecedented.

The exercise illustrated that realistic review is a very suitable method for the field of countering violent extremism. However, the heuristic guidelines developed in table 3.1, based on the current methodological and empirical literature on realist review, do not address how to tackle a realist review in domains where (i) the complexity of the problem leads to a vast set of C-M-O configurations, (ii) the complexity results in a lack of evaluation studies, (iii) the heterogeneity of the limited available studies requires a different form of data extraction and (iv) the rapid development of the field creates the risk of a review soon becoming outdated.

While the realist review of CVE evaluation studies showed that this evaluation method can be helpful in gaining a better understanding of complex social programmes that are characterized by heterogeneous interventions and limited evaluation studies, it also illustrated that adaption of the heuristic guidelines for realist review is required. The adapted guidelines were presented in table 3.3, but the most important adaptations can be summarized as follows:

- The focus of the review should be on getting a better sense of what the wicked and complex issue entails. The research questions then still have an explanatory focus, but are geared toward drawing out relevant contexts, mechanisms and outcomes instead of testing and comparing different theories.

- With a highly complex problem like CVE, the scoping phase is used as an opportunity to conceptually grasp the issue instead of to draw out programme theories. The results of this scoping phase are relevant to the search for primary studies as they provide insight into what search words should be used.
- Developing a theoretical model for what works, for whom, how and in what context is an end result of the review instead of the starting point.
- Primary studies should not be judged in terms of how much they contribute to a specific explanatory challenge, but rather if they provide insight into what the complex programme entails and specifically what relevant contexts, mechanisms and outcomes are related to the complex programme.
- If evaluations (primary studies) are lacking, inclusion criteria should be less strict. Besides qualitative and/or quantitative studies, process evaluations and theory-driven studies should also be included.
- Part of the essence of realist review is that it is not replicable. Rather, it is an interactive and iterative process that requires researchers to leave an interpretive trail. However, wicked problems such as CVE require a more systematic approach to analysing and synthesizing primary studies which focuses on what exactly is considered CVE and what its relevant contexts, mechanisms, outcomes and lessons learnt are.
- The continuous development of a field as complex as CVE means that a realist review is never finished. Rather, it is a contribution to systematic knowledge accumulation on the topic and can be used in evidence-based policy theory as an input for future reviews and evaluations.

The final point deserves special attention, because as this review illustrates, in just one year's time, the field of CVE developed so rapidly that the number of studies relevant to the realist review nearly doubled. While this is a very positive development, it basically meant that two reviews had to be conducted, and the original article had to be completely rewritten to include all the additional contexts, mechanisms and outcomes. While the article has now been published (Gielen, 2017a) the rapid development of the CVE field presumably will continue. This does raise questions about how long the findings of such a review remain current and thus relevant for policymakers. Ideally, the academic community should develop a database similar to that of Cochrane in the medical field, which make it possible to take stock of evaluation developments in CVE and use the newest CVE evaluation studies as the input for more refined realist reviews.

To conclude, the realist review method proved suitable for the evaluation of a domain as complex as CVE. However, it required the development *and* adaption of heuristic guidelines. The adapted heuristic guidelines can be used for future reviews of CVE programmes and of specific interventions, but also for other complex social programmes that face similar challenges as the CVE field. Additional realist reviews will remain necessary to contribute to further and up-to-date knowledge accumulation and C-M-O specifications. Only then will it be possible to contribute to the ultimate goal of realist review: informing policymakers to help them make more informed, evidence-based policy decisions.