Realist Evaluation

Principles and Practice

Edited by Ana Manzano and Emma Williams

First published 2025

ISBN: 978-1-032-59978-6 (hbk)
ISBN: 978-1-032-59977-9 (pbk)
ISBN: 978-1-003-45707-7 (ebk)

Chapter 3

Nothing as practical as an analytical strategy in realist evaluation

Findings and recommendations from a comprehensive review

Steffen Bohni Nielsen and Sebastian Lemire

DOI: 10.4324/9781003457077-4

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

3 Nothing as practical as an analytical strategy in realist evaluation

Findings and recommendations from a comprehensive review

Steffen Bohni Nielsen and Sebastian Lemire

Introduction

At the European Evaluation Society conference in 2002, Ray Pawson dubbed his keynote address 'Nothing as practical as a good theory' (2003). The phrase, originally coined by Kurt Lewin and since reiterated by Carol Weiss, was an argument for the centrality of theory in understanding whether and how programmes work (Weiss, 1995). Over the years, and parallel to a similar growth in theory-informed evaluation at large (Coryn et al., 2011), realist evaluation has gained momentum as an alternative to experimental designs – a counter to so-called 'black box evaluations' (Pawson & Tilley, 1997).

The main question driving realist evaluation is to uncover how programmes work, for whom and under what conditions through the elicitation of a programme theory (Pawson & Tilley, 1997). The realist evaluation approach is grounded in generative causation, whereby a sequence of unobserved entities – so-called mechanisms – are activated in specific contexts to generate one or more outcomes. Moreover, the approach recognises that an outcome is sometimes produced by a complex combination of causes – or causal packages – so a configurational approach to understanding and explaining how and why interventions work is imperative. Accordingly, realist causal analysis focuses on identifying 'the configuration that links the outcome to mechanism(s) triggered by the context, often combining quantitative and qualitative data' (Van Belle et al., 2016: n.p.).

In line with this thinking, realist evaluation structures the data collection and analysis around Context–Mechanism–Outcome (CMO) configurations. These CMOs are intended to capture the generative processes (mechanisms) that in a specific setting (context) contribute to one or more psychological, attitudinal and behavioural changes (outcomes) among intervention participants. As Pawson and Tilley (1997) explain, 'outcomes are explained by the action of particular mechanisms in particular contexts, and this explanatory structure is put in place over time by a combination of theory and experimental observation' (p.59).

Since Pawson and Tilley's publication of *Realistic Evaluation* in 1997, there has been an exponential growth of published realist evaluations, especially in

DOI: 10.4324/9781003457077-4

the area of public health and health (Lemire et al., 2020; Nielsen et al., 2022). The growing volume of publications has been followed by books (Emmel et al., 2018) and several conferences dedicated to the topic of realist evaluation. Speaking to the formalisation of realist evaluation, quality standards for realist evaluations have been published as part of the RAMESES Projects, covering both methodological quality and reporting standards for realist evaluations and realist syntheses (Wong et al., 2014; Greenhalgh et al., 2016; Wong et al., 2017).

Emerging from the growing literature on realist evaluation, several reviews of realist evaluations have over the years been published. Some reviews have focused on the application of realist evaluation in particular domains, such as the application in health systems research (Marchal et al., 2012) or knowledge transfer (Salter & Kothari, 2014). Other more methodology-oriented reviews have focused on the practical challenges of using realist evaluation (Ridde et al., 2012), data collection methods used in realist evaluation (Manzano, 2016; Renmans & Pleguezuelo, 2023), how mechanisms have been conceptualised and applied in realist evaluations (Lacouture et al., 2015; Lemire et al., 2020), underlying ontological and epistemological variations in the conceptualisation of context (Greenhalgh & Manzano, 2021; Nielsen et al., 2022), as well as variants of realist evaluations, such as realist trials (Nielsen et al., 2023).

The present review both builds on and reaches beyond previous reviews of realist evaluations by focusing specifically on the analytical strategies applied in realist evaluation. To our knowledge, as at the time of writing, there is no systematic examination of the analytical strategies used in realist evaluation. Based on a comprehensive review of published realist evaluations, we aim to open this analytical black box by identifying and illustrating the analytical strategies commonly used in realist evaluations and discussing how these are related to the research designs and data collection methods employed. Informed by the findings of our review, we discuss how to advance analytical rigour in future realist evaluations.

The chapter is structured in four parts. In the first part, we describe the iterative process of refining CMOs, as initially intended by Pawson and Tilley (1997). In the second part of the chapter, we describe the review methodology. In the third part, we present the findings from our review; focusing on how realist evaluators formulate initial CMOs; collect data on CMOs; and analyse, test and refine CMOs based on findings. In the fourth part, we conclude our chapter with a discussion on the need for further attention to analytical strategies and how these relate to data collection strategies in future realist evaluations.

The realist cycle – Iterative refinement of CMOs

Pawson and Tilley (1997) introduced realist evaluation as a logic of inquiry structured around iterative rounds of testing and refining CMOs, which typically involve multiple rounds of data collection and analysis.

In their review, Salter and Kothari (2014) found that realist evaluations typically consist of four phases: (1) formulation of the initial programme theory articulated as CMOs, (2) collection of data on the CMOs, (3) data analysis and testing of the CMOs and (4) formulation of a refined set of CMOs based on the findings. As Salter and Kothari (2014) note, this realist inquiry cycle is intended to be iterative, with each cycle further refining the CMOs. Table 3.1 provides an overview of the four phases and the main activities within each phase. In the third column, we have added common data collection methods and analytical techniques applied in each phase. In the fourth column, we also provide published practice examples that provide inspiration and guidance pertaining to each phase of the realist inquiry cycle.

In the remainder of this chapter, we will examine how realist evaluators conduct each of these four phases as described in published realist evaluations, awarding particular attention to phase three where analytical strategies come to the forefront. Before advancing our findings, we provide a brief description of the review methodology.

Table 3.1 The four phases of a realist evaluation

Phase	*Activities*	*Data collection and analytical tools*	*Exemplars*
1 Formulating initial programme theory and its CMOs	1 Formulation of initial programme theory 2 Development of potential CMOs 3 Generate testable hypotheses for CMOs	1 Research literature analysis 2 Document analysis 3 Stakeholder consultation 4 Programme theory construction	Vareilles et al. (2015) Westhorp (2013)
2 Data collection	1 Collect data appropriate to test hypotheses for CMOs	1 Research Design 2 Quantitative data collection methods 3 Qualitative data collection methods	Manzano (2016) (qual) Oroviogoicoechea and Watson (2009) (quant)
3 Data analysis and hypothesis testing	1 Data analysis centred on testing hypotheses	1 Statistical analytical techniques 2 Qualitative analytical techniques 3 Mixed-methods convergence	Von Thiele Schwarz et al. (2017) (quant) Martin and Tannenbaum (2017) (mixed)
4 Refining the CMOs	1 Assess on empirical findings and verification of hypotheses 2 Refine CMOs	1 Programme theory revision	Martin and Tannenbaum (2017) Vareilles et al. (2015)

Source: Adapted from Salter and Kothari (2014).

Review methodology

The present review of analytical strategies in realist evaluation emerges from a broader review of published realist evaluations (Lemire et al., 2020; Nielsen et al., 2022; Nielsen et al., 2023). A detailed description of the search strategy and terms, screening criteria, coding framework and procedures, among other aspects of the review methodology, is available in Lemire et al. (2020) and Nielsen et al. (2022).

The review was based on an electronic and manual search for realist evaluations published between 1997 and 2017 – the two decades after Pawson and Tilley's ground-breaking publication. The review identified 195 published studies with case examples of realist evaluations, of which 126 realist evaluations presented one or more CMOs. The focus of the present chapter is on the analytical strategies used for refining CMOs thus examining exclusively the 126 realist evaluations with one or more codable CMOs and the analytical strategies that could be discerned from these studies.

Table 3.2 provides an overview of the basic characteristics of the 126 cases with CMOs. As the table shows, realist evaluations are primarily from Europe (91 realist evaluations), of which most (69 realist evaluations) are from the United Kingdom alone. Realist evaluation appears to have gained traction within the (public) health sector, within which 94 (75%) of the realist evaluations are published.

The 126 case applications were coded according to a pre-specified coding framework structured around the characteristics of the realist evaluations (i.e., year, country, sector, study design, data collection methods [how data is collected; e.g., survey, interview], and data sources [from whom data is

Table 3.2 Characteristics of 126 realist evaluations (1997–2017)

	Count	*Percent*
Geography		
Europe	91	72.2
Australia	11	8.7
Africa	8	6.3
North America	7	5.6
Asia	6	4.8
South America	3	2.4
Sector		
Health (medicine/public health)	94	74.6
Social welfare	11	8.7
Other (public government, civic, tourism)	10	7.9
Education	5	4.0
Criminal justice	3	2.4
Environment	3	2.4
Employment	0	0.0
Total	126	100.0

Source: Adapted from Nielsen et al. (2022).

collected; e.g., programme staff, recipients or policy-makers], as well as types of mechanisms, context factors and outcomes presented in the CMOs). In addition, information on analytical strategies applied in the realist evaluations was extracted and coded for further analysis. We categorised the analytical strategies according to the label and description provided by the authors. Finally, we recorded whether CMOs were refined.

No review is without its limitations. One limitation of the present review is that it solely pertains to published realist evaluations that use explicit CMOs. These published applications represent a smaller subsample of all realist evaluations conducted during the time period. Some examples of realist evaluation without CMOs can be identified in the published literature (Pawson et al., 2011; Pawson et al., 2014). Second, the timeframe of the review (1997–2017) may have caused us to miss important publications that address some of the analytical gaps we identified, for example, Pattyn et al.'s incisive application of Qualitative Comparative Analysis (QCA) and process tracing in a realist evaluation study (2022).

As such, the published subsample of realist evaluations may differ in important ways from some currently published and non-published realist evaluations. For this reason, generalisation of findings beyond the boundaries of the sample should be approached with caution. Despite this limitation, the position we take is that the present review provides important and useful insights into how realist evaluations are designed and implemented.

Findings

This section presents the review findings structured in accordance with the four phases in the realist evaluation cycle of inquiry: (1) formulation of the initial CMOs (informed by a programme theory), (2) collection of data on the CMOs, (3) data analysis and CMOs testing and (4) refinement of CMOs based on the findings.

Phase 1: Formulation of initial CMO configurations

In our earlier review, we identified CMOs in two-thirds (65%) of the 195 published cases of realist studies (Nielsen et al., 2022). In these 126 cases, we identified 517 CMOs, averaging 4.1 CMOs per evaluation. Over three-quarters (77%) of the realist evaluations contained five or fewer CMOs. Another 18% contained between six and ten CMOs (Table 3.3). The number

Table 3.3 Number of CMOs in study distributed research design (n = 126)

	1–5 CMOs	*6–10 CMOs*	*11–15 CMOs*	*16 or more CMOs*
Experimental	11	3	0	
Non-experimental	84	20	2	4
Quasi-experimental	2			
Total (%)	97 (76.9)	23 (18.2)	2 (1.6)	4 (3.1)

Source: Adapted from Nielsen et al. (2022).

of CMOs varied noticeably across the realist evaluations, with as many as 23 CMOs identified in one evaluation. There is no clear variation across designs. Typically, the studies do not report on whether, how or why the number of CMOs initially developed and eventually tested differ.

As formulating the programme theory, and thereby uncovering CMOs, is pivotal in realist evaluation, we first describe how realist evaluators defined and operationalised each of the main concepts comprising their CMOs.

Mechanisms

In realism there are different constructs of mechanism (Westhorp, 2018). Pawson and Tilley (1997; 2008) proposed at least three different conceptualisations of mechanism: (1) as a programme component, (2) as participant reaction to programme component and (3) as an explanatory account (Lemire et al., 2020). Astbury and Leeuw (2010) furthermore describe mechanisms as underlying and hidden. In their review, Lemire and colleagues found that 46% of the studies did not include an explicit definition of mechanism (2020).

In our earlier review of realist evaluation, we examined the mechanisms included in 126 realist evaluations (Lemire et al., 2020). They contained a total of 904 mechanisms. (See Table 3.4). Most mechanisms were in the form of programme components (39%), participant psychological reactions (31%) or participant behavioural reactions (21%). Interestingly, the types of mechanisms examined in the evaluations – the actual CMOs around which the evaluation was structured – did not necessarily correspond with the definition of mechanisms offered by the author(s). That is, a realist evaluation defining mechanism as a programme component in the methods section might include a broader range of mechanisms in the subsequent CMO configurations, such as participant reactions to programme activities.

Table 3.4 Mechanisms in realist evaluations (n = 126)

Mechanism type	*Frequency*	*Percent*
Programme component	351	38.8
Participant psychological reaction	277	30.7
Participant behavioural reaction	185	20.5
Contextual conditions	78	8.6
Other	13	1.4
Total	904	100.0

Source: Database on published realist evaluations, 1997–2017.

Context

Nielsen et al. (2022) expanded on this analysis and examined how another key term, context, was conceptualised and operationalised by realist evaluators. The authors found that in 126 case applications with CMOs, 48%

contained an explicit definition of context. This finding aligned well with a contemporary review by Greenhalgh and Manzano (2021), which found that 45% of realist evaluations include explicit definitions.

Table 3.5 Contextual factors in realist evaluations (n = 126)

Context type	*Frequency*	*Percent*
Individual	138	16.2
Interpersonal	53	6.2
Institutional	310	36.5
Infrastructure	124	14.6
Intervention features	180	21.2
Other	45	5.3
Total	850	100.0

Source: Adapted from Nielsen et al. (2022).

Table 3.5 shows at what level the actual context factors were operationalised. Nielsen and colleagues (2022) noted a broad dispersion at different levels, with institutional (37%) and intervention features (21%) representing the most common levels.

In both reviews of context and mechanism conceptualisations in realist evaluations, the authors noted that methodological challenges remain, insofar as analytically distinguishing programme components, mechanism and contexts from each other both conceptually and operationally seems difficult for realist evaluators (Lemire et al., 2020; Nielsen et al., 2022).

Outcomes

Obviously, the number and types of outcomes depend on the programme being evaluated. On average, the 126 realist evaluations included five outcomes. Bearing in mind that most realist evaluations are conducted in the health and social service domains (see Table 3.2), it is no wonder that most outcomes pertain to human behaviour, knowledge, mental and physical health (see Table 3.6). A notable share of outcomes relates to changes in

Table 3.6 Outcomes in realist evaluations (n = 126)

Type	*Frequency*	*Percent*
Outcome psychological change	105	15.4
Outcome knowledge/understanding	75	11.0
Outcome skill/behaviour change	180	26.4
Outcome health change	28	4.1
Outcome programme change	252	36.9
Outcome other	43	6.3
Total	683	100.0

Source: Database on published realist evaluation, 1997–2017.

programme (37%), which may be an immediate or intermediate step towards longer-term outcomes measured on programme participants, and/or the programme's target population.

Considered collectively, the findings for the first phase of the realist cycle suggest that many realist evaluations have not defined the key constructs comprising the analytical template – the CMOs – for realist evaluations in the published articles. The mechanisms and context factors included in realist evaluations do not always align with the definitions of the terms provided in the article.

In most cases, realist studies include ten or fewer CMOs.

Phase 2: Data collection

A central premise for realist evaluation is that the analysis of the programme theory should drive all phases of the inquiry. As realist evaluation is 'methods neutral' (Van Belle et al., 2016), one could expect variation in research design, methods for data collection and data analysis across realist evaluations. Additionally, multiple rounds of data collection would be expected as the programme theory is translated into CMOs and further tested and refined in an iterative fashion.

Variation in research design seemed somewhat limited across realist evaluations. Almost all the realist evaluations involved non-experimental designs (87%), with only a few using an experimental (11%) or quasi-experimental design (2%) (see Table 3.3). The prevalence of non-experimental designs is perhaps not too surprising given the initial introduction of realist evaluation as an alternative to experimental designs. Indeed, realist evaluation and experimental designs are considered incompatible in some realist evaluation circles (see Nielsen et al., 2023).

The data collection techniques in our sample primarily relied on qualitative data (49%) or mixed methods data (44%) (Table 3.7). As expected, given realist adherence to method pluralism, realist evaluations display a wide variety of data collection techniques and sources. However, interviews and surveys are common. Moreover, a sizeable proportion of all realist evaluations (37%) involved only one round of data collection, deviating from the

Table 3.7 Type of data collection methods in realist evaluation (n = 126)

	Frequency	*Percent*
Qualitative	62	49.2
Mixed methods	56	44.5
Quantitative	8	6.3
Total	126	100.0

Source: Database on published realist evaluation, 1997–2017.

intended iterative rounds of data collection initially intended to be included in the realist evaluation cycle to refine the programme theory (Table 3.9), a point we return to later in this chapter.

Phase 3: Analysis and testing of CMOs

Given the diversity in data collection methods, one could expect similar variation in data analytical techniques. Table 3.8 illustrates the analytical techniques mentioned by realist evaluators when analysing CMOs. Notably, 58 of 126 cases (46%) did *not* explicitly report the analytical techniques they applied. By far, the most commonly reported analytical technique is thematic analysis followed by framework analysis, both of which are qualitative coding and analysis techniques. It is notable that explicitly stated analytical techniques and the chosen research design do not always seem to align. For example, one would expect an experimental design (realist trial) to rely on quantitative analytical techniques. This may be due to emphasis in the published account where multiple lines of inquiry were included in the study and results using the experimental design are published elsewhere (Nielsen et al., 2023).

Table 3.8 Types of analytical techniques applied in realist evaluation cases (n = 126)

Analytical technique	*Type of research design*			
	Experimental	*Non-experimental*	*Quasi-experimental*	*Total*
Unspecified	4	54		58
Thematic Analysis	5	39	1	45
Framework Analysis	3	8		11
Qualitative Comparative Analysis		2		2
Structural Equation Modelling	2			2
Causal Loop Diagram		1		1
Cognitive Mapping, Constant Comparative Method		1		1
Concept Mapping and Framework Analysis		1		1
Delphi Technique		1		1
Explanatory Effects Matrix		1		1
Linked Coding Approach		1		1
Statistical Multivariate Analysis		1		1
Systematic Text Condensation/Statistical analysis			1	1
Total	**14**	**110**	**2**	**126**

Source: Database on published realist evaluation, 1997–2017.

In the following section, we will outline the analytical techniques applied. The section is structured based on the prevalence of the analytical strategy in the realist evaluations.

Thematic analysis

Thematic analysis is a qualitative analytical technique, which is used across a range of epistemologies and research questions. Thematic analysis can be used for identifying, analysing, organising, describing and reporting themes found within a body of text, such as existing literature, administrative texts and interview transcripts (Nowell et al., 2017). As thematic analysis does not rest on a specific methodological and procedural prescription as some other qualitative approaches do, it offers a more accessible form of analysis which is useful for in-depth description of a phenomenon. However, it may be more suitable for initial theory development rather than for testing and refining CMOs, as the latter process requires additional systematic techniques (e.g., the Linked Coding Approach), which are not inherently part of thematic analysis. This holds true for the Explanatory Effects Matrix as well. Both the Explanatory Effects Matrix and the Linked Coding Approach will be discussed later in this section.

Framework analysis

Closely related to thematic analysis, the overall purpose of Framework Analysis is to identify, describe and interpret key patterns within, and across, cases. As such Framework Analysis is an inherently comparative form of thematic analysis, which applies an organised structure of inductively and deductively derived themes (i.e., in a matrix or visual diagram) to conduct cross-sectional analysis (Goldsmith, 2021). The technique has the advantage of lending structure to thematic analysis. As is the case with thematic analysis and concept mapping, it is highly flexible and may be applied under many different circumstances, but lacks systematic steps and transparency needed for configurational causal analysis. As such, the technique seems most appropriate for formulating CMOs than to test concrete hypotheses.

Qualitative comparative analysis

Qualitative Comparative Analysis (QCA) is a case-based approach to causal analysis that uses Boolean algebra as a set of logical procedures in order to minimise the configuration of conditions (i.e., combinations of contexts conditions) that distinguish the cases with a specific outcome (Ragin, 2000). It uses minimisations of qualitative data into binary or interval (quantitative) data that are then computed to arrive at generalisations about the factors that generate a certain outcome. Renmans (2023) has developed and tested a specific version of QCA in realist evaluation. QCA uses a systematic set of steps and is supported by software. It is particularly useful for testing and refining

CMOs as it tests different configurations of conditions (contextual factors) that are tied to a particular outcome.

Structural equation modelling

Structural Equation Modelling (SEM) is a particular variant of Multivariate Analysis, which is widely used in the social sciences. It provides a flexible framework for developing and analysing complex relationships among multiple variables that allow researchers to test the validity of theory using empirical models (Beran & Violato, 2010). Its ability to test theoretical models makes it especially useful for theory-informed evaluations that apply quantitative data. It has also been applied in realist evaluations (Von Thiele Schwarz et al., 2017) and other types of theory-based evaluation (Lemire et al., 2023). As with statistical multivariate analysis in general, it is particularly useful for quantitatively testing CMOs and hypothesised causal processes.

Causal loop diagram

Rooted in systems thinking, causal loop diagrams are best described as a form of visualisation of complex relationships. In a recent review, Baugh Littlejohns et al. (2021) documents its applications using mixed methods. Examples in realist evaluation include Byng et al. (2005), who used causal loop diagrams to depict more complex interactions between individual CMOs. As a visualisation tool it can be applied when formulating, testing or refining CMOs. See Lemire et al. (2023) for examples of causal loop diagrams.

Cognitive mapping

Cognitive mapping is a qualitative and phenomenologically informed method of recording how different actors perceive reality. Parlour and McCormack (2012) used the techniques to collate data from converging lines of inquiry for the final analysis. The technique is essentially a visualisation of links between meaning units and does not offer a systematic procedure for analysing the proposed links. Therefore, the technique seems more appropriate to elicit CMOs through the collation of stakeholder perspectives.

Constant comparative method

In the Constant Comparative Method (CCM) every new data unit is compared with previous data to identify similarities and differences within the meaning unit. Saturation is achieved when further empirical data do not add further insights compared with previous data. CCM seems most appropriate for testing and refining CMOs as it pursues a within-case or across-case comparison of data for a proposed relation between meaning units such as CMO configurations (see Parlour & McCormack, 2012). According to Malterud (2012), the synthesis

procedure in Systematic Text Condensation (discussed later in this section) is comparable to the Constant Comparative Method (Glaser & Strauss, 2017).

Concept mapping

Closely related to cognitive mapping, concept mapping is a visual strategy for displaying concepts, and relationships between concepts, that are typically linked by connecting lines (De Ries et al., 2022). Concept maps can be applied at each step of the research process and can be particularly useful as part of thematic analysis (Ward & Haigh, 2017). There are examples of using concept mapping in conjunction with quantitative data and analysis (Mehdipanah et al., 2013) and programme theories (Lemire et al., 2023). The technique can be used to formulate CMOs through the identification of potential contexts and mechanisms, but also to test CMOs.

Delphi survey

The Delphi Survey is a technique used to obtain a consensus of opinion from a panel of stakeholders (Fisher & Downes, 2008). Delphi Surveys use questionnaires in multiple rounds to identify and consolidate a consensus position. Researchers can report findings on a specific question (or set of questions) that are based on the knowledge and experience of experts in their field (such as propositions as about mechanisms and contexts). Participants are able to see the results of previous rounds – including their own responses. Marginal positions are asked to reflect on their assessment and reposition their own opinions accordingly (Barrett & Heale, 2020). As such the technique often drives towards a consensus. It has been applied in realist evaluation (Fisher & Downes, 2008) and theory-based evaluation more broadly (Lemire et al., 2023) and can be useful for both the initial development and testing of CMOs.

Explanatory effects matrix

Explanatory Effects Matrix is a technique developed by Miles and Huberman (1994) and aims to order the (causal) relations in a particular domain in the shape of a chart linking certain concepts (e.g., mechanisms, context factors) with outcomes. According to its creators, it is useful for initial exploration of causation in a particular domain. It has been applied in a realist evaluation by Kovacs and Corrie (2016). As it is recommended for exploration of causation, the technique seems most appropriate for formulating CMOs.

Linked coding approach

Linked Coding Approach (LCA) is a qualitative analytical technique developed specifically to analyse and test CMOs (Jackson & Kolla, 2012). Essentially, textual data are coded for individual meaning units (a discrete C, M or O identified in a prior step). In text sections dyads, triads or more complex

strings may be coded. As such textual data can be analysed for implicit and explicit CMO connections as represented by different sources. The approach can be used for eliciting, testing and refining CMOs.

Statistical multivariate analysis

Multivariate Analysis is a frequently used inferential statistical technique used to analyse data with multiple variables simultaneously. Multivariate analysis aims to understand relationships between these variables and explore patterns, correlations and interactions among them. Multivariate analysis encompasses a wide range of discrete methods, including regression analysis, multivariate analysis of variance, discriminant analysis, principal component analysis and factor analysis (Hutcheson & Sofroniou, 1999). It has been used in realist evaluation to test causal pathways in programme theories (Oroviogoicoechea & Watson, 2009). The various techniques hold multiple options for quantitatively testing CMOs and hypothesised causal processes.

Systematic text condensation

Systematic Text Condensation (STC) is a qualitative analytical technique which is used to identify and elicit themes. STC consists of four steps: (1) reading through the material to identify preliminary themes; (2) identifying and developing meaning units; (3) systematically abstracting meaning units; and (4) reconceptualising data and develop concepts and descriptions (Malterud, 2012). In one of the cases reviewed, coding was guided by the previously developed programme theory, but unexpected findings were also coded. Further, the authors used ordinal logistic regressions for the quantitative analysis of outcome data (Pals et al., 2016). The technique is used to elicit meaning units (nodes) that are linked. Such links can create and test configuration. As such it seems most appropriate for formulating and testing CMOs.

Considered collectively, we were surprised that we did not find any published examples of some different analytical techniques that we considered particularly amenable to realist evaluation and generative causation. These include Process Tracing (Bennett et al., 2019), Outcome Pattern Matching (Trochim, 1989), Contribution Tracing (Befani & Stedman-Bryce, 2017) and Logic Analysis (Brousselle & Champagne, 2011). We shall consider these further in the discussion below.

Phase 4: Refinement of CMOs

There is only general procedural guidance on how refinement of CMOs should be carried out in realist evaluations (Wong et al., 2016). Of the 126 realist evaluations in our review, 64% included refined CMOs. Most of these were in narrative and or table format. Moreover, the refinements of CMOs were mostly carried out by the evaluator alone, sometimes in collaboration with staff or other stakeholders. (See Table 3.9).

Table 3.9 Refined CMO reported in study (*n* = 126)

Refined CMO reported:			
Yes 81 (64%)			**No** 45 (36%)
Refined CMO developed by:			
Evaluator 62 (77%)		**Evaluator with staff/stakeholder** 19 (23%)	
Refined CMO reported as:*			
Narrative 78 (96%)	Table 37 (46%)	Diagram 21 (26%)	Other 3 (4%)

Source: Database on published realist evaluation, 1997–2017.

* Does not sum to 126 (100%) as multiple options possible

Summarising across the phases of the realist inquiry cycle, our review findings reveal that many realist evaluations have not defined the key constructs comprising the analytical template – the CMOs – for realist evaluations. In most cases, realist studies include ten or fewer CMOs. The methodological diversity hailed by realists is evident in the wide variety of data collection methods and to some extent the analytical techniques applied in realist evaluations. Analytical strategies and the techniques applied are central to empirically substantiating theories and claims about the existence of CMOs. Ultimately the analytical strategy is central to providing a plausible explanatory account of why a programme works.

Discussion and recommendations for practice

In this chapter, we argue that an analytical strategy that includes the application of concrete analytical techniques is an indispensable tool for substantiating programme theories. This is the case for realist evaluations and for theory-based evaluation more broadly. Towards advancing analytical strategies in evaluation, evaluators should apply rigor in thinking. This implies knowing a broad range of methodological tools for evaluation design, data collection, analysis and inferring judgement, as well as making an explicit and reasoned application of analytical strategies to fit the specific purposes of the evaluation.

Some analytical techniques may be more fit-for-purpose at different stages of the realist endeavour. Based on our presentation of the techniques and concrete application in realist evaluation cases, we have summarised what we consider the most appropriate fit for the different analytical techniques

Table 3.10 Appropriateness of analytical techniques for developing/testing/refining CMO configurations

Analytical technique	*Step of CMO configuration development*			
	Formulating CMOs	*Testing CMOs*	*Refining CMOs*	*Type of data*
Cognitive Mapping	●	●		Qualitative
Concept Mapping	●			Qualitative
Constant Comparative Method		●	●	Qualitative
Delphi Technique	●		●	Qualitative
Explanatory Effects Matrix	●			Qualitative
Framework Analysis	●	●		Qualitative
Linked Coding Approach	●	●	●	Qualitative
Process Tracing		●		Qualitative
Systematic Text Condensation	●	●		Qualitative
Thematic Analysis	●			Qualitative
Statistical Multivariate Analysis		●		Quantitative
Structural Equation Modelling		●		Quantitative
Causal Loop Diagram	●	●	●	Mixed
Contribution Tracing		●		Mixed
Logic Analysis	●	●		Mixed
Outcome Pattern Matching		●		Mixed
Qualitative Comparative Analysis		●	●	Mixed

applied (and some promising but absent, in the sample we used for analysis). These are presented in Table 3.10. Following Salter and Kothari (2014), we have related them to the three stages wherein programme theory and CMOs are formulated, tested and refined. The table indicates that some techniques may be more appropriate for gleaning programme theories and establish (potential) CMOs, but less applicable for testing CMOs and providing a rigorous explanatory account that takes into account configurational causal analysis.

Other than applying analytical strategies for the right purposes, the data from our comprehensive review of published realist evaluation cases suggests that some lessons can be learned and principles for rigor in thinking in realist evaluation practice can be discerned. These principles should form a point of reference for the application of realist evaluation.

1 *Define key constructs – mechanisms, context and outcomes*. Too many realist evaluators report methodological challenges in distinguishing mechanisms, context and outcomes from another. Realist evaluators should consult established definitions and determine why and how said definition is most useful in their particular evaluation context. Clear and operable definitions promote transparency and provide a firm foundation for data collection and analysis.
2 *Ensure that sufficient CMOs are identified to test the programme theory*. Operatively, one may have too few or too many CMOs to create a convincing argument that a programme works in a specific way. The adequate

number of CMOs ultimately hinges on the complexity of the programme. Shaw and colleagues (2018) provide an insightful example of analysing CMOs moving from a macro to a micro level, skilfully showing how different mechanisms and contexts can be at play at different levels of the analysis and thereby some mechanisms at a higher level (i.e., policy level) may become context at a lower level (i.e., organisational level).

3 *Make explicit priorities for selected CMO configurations and hypotheses*. There is an unending range of possibilities as to what contexts may be imparted in CMO configurations, and one can speculate an infinite number of mechanisms. Often evaluators need to prioritise which ones are salient and should be the object of study. Tools and techniques to do so rigorously and explicitly are necessary (Lemire et al., 2012).
4 *Decide on an analytical strategy early on*. The ever-presence of theory implies that realist evaluators must be clear on what analytical techniques should be applied at different stages of the research so that they support a realist logic of analysis. These tools are essential in shaping fieldwork data collection, and formulating, testing and refining the CMOs. In recent publications, there are promising examples of applying conventional qualitative analytical techniques (Dalkin et al., 2021) and combining a realist logic of analysis with other techniques, such as QCA and process tracing (Pattyn et al., 2022).
5 *Converge and fit research design, data collection methods and analytical strategy*. The professed methodological plurality of realist evaluation means that many options exist. Design, data collection methods and instruments and analytical techniques should be logically and transparently aligned so they can support the theory testing and refining strategy. We recommend creating a protocol/methodology note early on, which details how and why each activity is conducted and how it is related to subsequent procedures of analysis and data collection that eventually leads to a refined programme theory. However, it is important for this protocol to remain flexible to accommodate fieldwork contingencies and the emergence of new theories.
6 *Triangulate sources and data collection methods*. Realist evaluators are focused on middle-range theories with context-dependent applicability. Realist evaluators should deftly collect data from multiple sources using multiple forms of data collection and analysis to strengthen the validity of their findings.

Returning to the initial clarion call of Ray Pawson, that there is nothing as practical as a good theory, we posit that there is nothing as practical as a good analytical strategy. Rigour in realist evaluation necessarily implies an explicit, reasoned application of an analytical strategy that purposefully deploys data collection methods and analytical techniques that enable the formulation, testing and refinement of said theory. Ultimately, this is the

empirical testing ground of evaluation. As such there is nothing as practical as an analytical strategy.

Conclusion

In this chapter, we focused on the analytical strategies applied in published cases of realist evaluations. We found that (too) many realist evaluators struggled to define key constructs and specify the analytical strategy and techniques used to substantiate the programme theory and CMOs forwarded in their realist evaluation. We found that about nine of ten cases applied non-experimental research designs and used qualitative or mixed-methods. About six of ten applied one or more explicit analytical techniques. We then examined which analytical techniques were applied, and assessed whether the techniques we found were particularly appropriate at different stages of the realist evaluation cycle. Finally, we recommended a number of principles that we consider important towards advancing the practice of designing and conducting realist evaluations.

Acknowledgements

The authors would like to thank the editors of the book for useful and actionable feedback and Ingrid Bjerregaard Lauridsen for technical assistance with the data analysis.

Bibliography

Abalkhail, M., Stead, V., Elliott, C., & Mavin, S. (Eds.). (2021). Being 'native': Insider research in qualitative studies of gender and management. *Handbook of research methods on gender and management*, 130–160. Edward Elgar Publishing, https://doi.org/10.4337/9781788977937.00017

Abejirinde, I., Ilozumba, O., Marchal, B., Zweekhorst, M. & Dieleman, M. (2018a). Mobile health and the performance of maternal health care workers in low- and middle-income countries: A realist review. *International Journal of Care Coordination*, *21*. https://doi.org/10.1177/2053434518779491

Abejirinde, I. O., Zweekhorst, M., Bardaji, A., Abugnaba-Abanga, R., Apentibadek, N., De Brouwere, V., Van Roosmalen, J. & Marchal, B. (2018b). Unveiling the black box of diagnostic and clinical decision support systems for antenatal care: Realist evaluation. *JMIR Mhealth Uhealth*, *6*, e11468. https://doi.org/10.2196/11468

Abelson, J., Canfield, C., Leslie, M., Levasseur, M. A., Rowland, P., Tripp, L., Vanstone, M., Panday, J., Cameron, D., Forest, P.-G., Sussman, D., & Wilson, G. (2022). Understanding patient partnership in health systems: Lessons from the Canadian patient partner survey. *BMJ Open*, *12*(9), e061465. https://doi.org/10.1136/bmjopen-2022-061465

Abrams, R., Park, S., Wong, G., Rastogi, J., Boylan, A, Tierney, S., Petrova, M., Dawson, S., & Roberts, N. (2021). Lost in reviews: Looking for the involvement of stakeholders, patients, public and other non-researcher contributions in realist reviews *Research Synthesis Methods*, *12*, 239–247. https://doi.org/10.1002/jrsm.1459

Aburn, G. E., Gott, M., & Hoare, K. (2022). Experiences of an insider researcher–interviewing your own colleagues. *Nurse Researcher*, *30*(3). https://doi.org/10.7748/nr.2021.e1794

Ackroyd, S., & Fleetwood, S. (2003). Realism in contemporary organisation and management studies. *Realist Perspectives on Management and Organisations*, 3–25. https://doi.org/10.4324/9780203164433-9

Africa Evaluation Association. (2021). *The African evaluation principles*. https://afrea.org/AEP/new/The-African-Evaluation-Principles.pdf

Alderson, P. (2021). *Critical realism for health and illness research: A practical introduction*. Policy Press.

Allana, S., & Clark, A. (2018). Applying meta-theory to qualitative and mixed-methods research: A discussion of critical realism and heart failure disease management interventions research. *International Journal of Qualitative Methods*, *17*(1), 1–9. https://doi.org/10.1177/1609406918790042

Allard, T., Stewart, A., & Manning, M. (2019). The virtues of rubbish research: A novel way of measuring the impact of crime prevention interventions in public spaces. In

G. Farrell and A. Sidebottom (Eds) *Realistic evaluation for crime science: Essays in honour of Nick Tilley* (pp. 77–99). Routledge.

Amenyah, S. D., Murphy, J., & Fenge, L. A. (2021). Evaluation of a health-related intervention to reduce overweight, obesity and increase employment in France and the United Kingdom: A mixed-methods realist evaluation protocol. *BMC Public Health*, *21*(1). https://doi.org/10.1186/S12889-021-10523-3

Anderson, A. (2005). *The community builder's approach to theory of change. A practical guide to theory development*. The Aspen Institute Roundtable on Community Change.

Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press.

Archer, M. (2000). *Being human*. Cambridge University Press.

Archer, M. (2003). *Structure, agency and the internal conversation*. Cambridge University Press.

Archer, M. (2011). Morphogenesis: Realism's explanatory framework. In A. Maccarini, E. Morandi, & R. Prandini (Eds.), *Sociological realism* (pp. 59–94). Routledge.

Archer, M., Decoteau, C., Gorski, P. S., Little, D., Porpora, D., Rutzou, T., Smith, C., Steinmetz, G., & Vandenberghe, F. (2016). What is critical realism? *Perspectives*, *38*(2), 4–9.

Arthur, S & Nazroo, J (2003). Designing fieldwork strategies and materials. In Richie, J & Lewis, J (ed.) *Qualitative research practice, a guide for social science students and researchers* (pp.109–137), SAGE.

Astbury, B., & Leeuw, F. L. (2010). Unpacking black boxes: Mechanisms and theory building in evaluation. *American Journal of Evaluation*, *31*(3), 363–381. https://doi.org/10.1177/1098214010371972

Atkinson, M. (1968). On the sociology of suicide. *The Sociological Review*, *16*, 83–92.

Aubin, D., Hebert, M., & Eurich, D. (2019). The importance of measuring the impact of patient-oriented research. *Canadian Medical Association Journal*, *191*(31), E860–E864. https://doi.org/10.1503/cmaj.190237

Azizian, A. R., Carr, T., Muhajarine, N., Verrall, T., Hartness, C., Vanstone, J., Yasinian, M., Skrapek, C., Andreas, B., Farthing, G., & Groot, G. (2021). Developing a patient-oriented realist evaluation for COVID-19 vaccine implementation in Saskatchewan: A methodologic framework. *Canadian Medical Association Open Access Journal*, *9*(4), E1034–E1039. https://doi.org/10.9778/cmajo.20210041

Baddeley, A. (1992). Working memory. *Science*, *255*(5044), 556–559. https://doi.org/10.1126/science.1736359

Baker, M., Fessinger, M., McWilliams, K., & Williams, S. (2021). The use of note-taking during forensic interviews: Perceptions and practical recommendations for interviewers. *Developmental Child Welfare*, *3*(1), 20–35. https://doi.org/10.1177/25161032211002187

Bankhead, C.R., Spencer E.A., & Nunan, D. (2019) Information bias. In: *Sackett Catalogue of biases*. https://catalogofbias.org/biases/information-bias/

Bareinboim, E., Tian, J., & Pearl, J. (2022). Recovering from selection bias in causal and statistical inference. In P. Glymour & R. Scheines (Eds.), *Probabilistic and causal inference: The works of Judea Pearl* (pp. 433–450). Wiley

Barrett, D., & Heale, R. (2020). What are Delphi studies? *Evidence-Based Nursing*, *23*(3), 68–69. DOI: http://dx.doi.org/10.1136/ebnurs-2020-103303

Battersby, M. (2016) Enhancing rationality: Heuristics, biases, and the critical thinking project (2016). OSSA Conference Archive. 2. https://scholar.uwindsor.ca/ossaarchive/OSSA11/keynotes/2

Baugh Littlejohns, L., Hill, C., & Neudorf, C. (2021). Diverse approaches to creating and using causal loop diagrams in public health research: Recommendations from a scoping review. *Public Health Reviews*, *14*(42), 1604352. https://doi.org/10.3389/phrs.2021.1604352

Baum, F., Macdougall, C. & Smith, D. (2006). Participatory action research. *Journal of Epidemiology & Community Health*, *60*, 854–7. https://doi.org/10.1136/jech.2004.028662

Beach, D. (2017) Process tracing methods in social science, *Oxford Research encyclopaedia of politics* https://oxfordre.com/politics/display/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-176

Becker, H. S. (1967). Whose side are we on? *Social Problems*, *14* (3), 239–247.

Befani, B., Ledermann, S., & Sager, F. (2007). Realistic evaluation and QCA: Conceptual parallels and an empirical application. *Evaluation*, *13*(2), 171–192. https://doi.org/10.1177/1356389007075222

Befani, B., & Stedman-Bryce, G. (2017). Process tracing and Bayesian updating for impact evaluation. *Evaluation*, *23*(1), 42–60. DOI: https://doi.org/10.1177/1356389016654584

Benatar, S. R., & Fleischer, T. E. (2007). Ethical issues in research in low-income countries. *The International Journal of Tuberculosis and Lung Disease*, *11*(6), 617–623.

Bennett, A., Fairfield, T., & Soifer, D. H. (2019). Comparative methods and process tracing. *American Political Science Association Organized Section for Qualitative and Multi-Method Research, Qualitative Transparency Deliberations, Working Group Final Reports, Report III.1*. http://dx.doi.org/10.2139/ssrn.3333405

Beran, T. N., & Violato, C. (2010). Structural equation modeling in medical research: A primer. *BMC Research Notes 3*, 267. https://doi.org/10.1186/1756-0500-3-267

Bergen, N., & Labonté, R., (2020). "Everything is perfect, and we have no problems": Detecting and limiting social desirability bias in qualitative research. *Qualitative Health Research 30*(5): 783–792. https://doi.org/10.1177/1049732319889354

Better Evaluation. (2024). *Describe the theory of change*. https://www.betterevaluation.org/frameworks-guides/managers-guide-evaluation/scope-evaluation/describe-theory-change

Bhaskar, R. (2008). A realist theory of science. In *Medical History* (Vol. 25, Issue 1). https://doi.org/10.2307/2184170

Bhaskar, R. (2009). *Scientific realism and human emancipation* (2nd ed.). Routledge.

Bhaskar, R. (2016). Enlightened common sense: The philosophy of critical realism. In Mervyn Hartwig (Ed.), *Journal of critical realism* (Issue 4). Routledge.

Birt, L., West, J., Poland, F., Wong, G., Handley, M., Litherland, R., Hackmann, C., Moniz-Cook, E., Wolverson, E., Teague, B., Mills, R., Sams, K., Duddy, C., & Fox, C. (2023). Protocol for a realist evaluation of Recovery College dementia courses: Understanding coproduction through ethnography. *BMJ Open*, *13*(12), e078248. https://doi.org/10.1136/bmjopen-2023-078248

Blamey, A. & Mackenzie, M. (2007). Theories of change and realistic evaluation. Peas in a pod or apples and oranges? *Evaluation*, *13* (4) 439–455. https://doi.org/10.1177/1356389007082129

Boland, J., Banks, S., Krabbe, R., Lawrence, S., Murray, T., Henning, T., & Vandenberg, M. (2022). A COVID-19-era rapid review: Using zoom and skype for qualitative group research. *Public Health Research & Practice*, *32*(2). https://www.phrp.com.au/wp-content/uploads/2021/07/PHRP31232112.pdf

Boudon, R. (2014). What is context? KZfSS Kölner Zeitschrift für. Soziologie und Sozialpsychologie, *66*(1), 17–45. https://doi.org/10.1007/s11577-014-0269-2

Bouyousfi, S.E. & Sabar, M. (2022). Realistic evaluation and the process-tracing method: A combined approach to scrutinizing causal mechanisms. *Canadian Journal of Program Evaluation*, *37*(1), 83–103. https://doi.org/10.3138/cjpe.71050

Bragason, E. H. (1997). Interviewing through interpreters. *Newsletter–Centre for Qualitative Research*, *23*.

Brandsen, T., Steen, T. & Verschuere, B. 2018. *Co-production and co-creation. Engaging citizens in public services*. Routledge.

Brault, N. (2021). Une brève histoire du concept de biais en épidémiologie. Epidemiology and Public Health. *Revue d'Epidémiologie et de Santé Publique 69*(4): 215–223. https://doi.org/10.1016/j.respe.2021.04.134

Brönnimann, A. (2022). How to phrase critical realist interview questions in applied social science research. *Journal of Critical Realism*, *21*(1), 1–24. https://doi.org/10.1080/14767430.2021.1966719

Brousselle, A., & Champagne, F. (2011). Program theory evaluation: Logic analysis. *Evaluation & Program Planning*, *34*(1), 69–78. https://doi.org/10.1016/j.evalprogplan.2010.04.001

Brunson, L., Lauzier-Jobin, F., Olson, B., & Cote, L.P. (2023). Seven key insights from critical realism and their implications for ecological think and action in community psychology. *Journal of Community Psychology*, *online*. https://doi.org/10.1002/jcop.23054

Bryman, A. (2012). *Social research methods*, 4th edition. Oxford University Press.

Budig, K., Diez, J., Conde, P., Sastre, M., Hernán, M., & Franco, M. (2018). Photovoice and empowerment: Evaluating the transformative potential of a participatory action research project. *BMC Public Health*, *18*(1). https://doi.org/10.1186/s12889-018-5335-7

Buetow, S. (2019). Apophenia, unconscious bias and reflexivity in nursing qualitative research. *International Journal of Nursing Studies*, *89*, 8–13. https://doi.org/10.1016/j.ijnurstu.2018.09.013

Burns, D., Howard, J. & Ospina, S. M. 2021. Challenges in the practice of participatory research and inquiry. In Burns, D., Howard, J., Ospina, S.M. (ed.) *The Sage handbook of participatory research and inquiry*. SAGE.

Byng, R., Norman, I., & Redfern, S. (2005). Using realistic evaluation to evaluate a practice level intervention to improve primary healthcare for patients with long term mental illness, *Evaluation*, *11*(1), 69–93. https://doi.org/10.1177/1356389005053198

Byrne, D. (2002). *Interpreting quantitative data*. SAGE.

Byrne, D. (2004). Complex and contingent causation – The implications of complex realism in quantitative modelling: The case of housing and health. In B. Carter & C. New (Eds.), *Making realism work: Realist social theory and empirical research* (pp. 50–66). Routledge.

Campbell, D.T. (1988) A general "selection theory", as implemented in biological evolution and in social belief-transmission-with-modification, in science. *Biology & Philosophy 3*, 171–177.

Carr, T., Quinlan, E., Robertson, S., & Gerrard, A. (2017). Adapting realist synthesis methodology: The case of workplace harassment interventions. *Research Synthesis Methods*, *8*(4), 496–505. https://doi.org/10.1002/jrsm.1261

Catalani, C., & Minkler, M. (2010). Photovoice: A review of the literature in health and public health. *Health Education & Behavior*, *37*(3), 424–451. https://doi.org/10.1177/1090198109342084

Charmaz, K. & Belgrave, L. (2012). Qualitative interviewing and grounded theory analysis. In Gubrium, J, Holstein, J, Marvasti, A & McKinney, K (ed.) *The Sage handbook of interview research: The complexity of the craft (2 ed)*. (pp. 347–366). SAGE.

Chen, H. T. (1990). *Theory-driven evaluations*. SAGE.

Chernoff, F. (2007). Critical realism, scientific realism, and international relations theory. *Millennium*, *35*(2), 399–407. https://doi.org/10.1177/03058298070350021701

Clibbens, N., Baker, J., Booth, A., Berzins, K., Ashman, M., Sharda, L., Thompson, J., Kendal, S. and Weich, S. Explanation of context, mechanisms and outcomes in adult community mental health crisis care: The MH-CREST realist evidence synthesis. Southampton (UK): National Institute for Health and Care Research; 2023 Sep. (*Health & Social Care Delivery Research*, No. 11.15.) Chapter 2, Review

methodology and methods. Available from: https://www.ncbi.nlm.nih.gov/books/NBK596123/

Collier, A. (1994). *Critical realism: An introduction to Roy Bhaskar's philosophy*. Verso.

Collins, H.M. (1985). *Changing order: Replication and induction in scientific practice*. SAGE.

Coloma, R. S. (2008). Border crossing subjectivities and research: Through the prism of feminists of color. *Race Ethnicity & Education*, *11*(1), 11–27. https://doi.org/10.1080/13613320701845749

Coorey, G, Peiris, D, Neubeck, L & Redfern, J (2020). A realist evaluation approach to explaining the role of context in the impact of a complex eHealth intervention for improving prevention of cardiovascular disease. *BMC Health Services Research 20*, 764. https://doi.org/10.1186/s12913-020-05597-5

Coryn, C. L., Noakes, L. A., Westine, C. D., & Schröter, D. C. (2011). A systematic review of theory-driven evaluation practice from 1990 to 2009. *American Journal of Evaluation*, *32*(2), 199–226. https://doi.org/10.1177/1098214010389321

Cristia, A., Seidl, A., Vaughn, C., Schmale, R., Bradlow, A., & Floccia, C. (2012). Linguistic processing of accented speech across the lifespan. *Frontiers in Psychology*, *3*, 479. https://doi.org/10.3389/fpsyg.2012.00479

Dada, S., Praveenkumar, A., Aoife, D. B., De Brunún, A., Barreix, M., Chelwa, N., Mutunga, Z., Vwalika, B., & Brynne, G. (2023). Understanding communication in community engagement for maternal and newborn health programmes in low- and middle-income countries: A realist review. *Health Policy & Planning*. https://doi.org/10.1093/HEAPOL/CZAD078

Dada, S., Praveenkumar, A., Aoife, D. B., De Brunún, A., Barreix, M., Chelwa, N., Mutunga, Z., Vwalika, B., & Brynne, G. (2024) We move together: a realist evaluation of the safe motherhood action groups in Eastern Province, Zambia [Manuscript submitted for publication]

Dalkin, S., Forster, N., Hodgson, P., Lhussier, M., & Carr, S. M. (2021). Using computer assisted qualitative data analysis software (CAQDAS; NVivo) to assist in the complex process of realist theory generation, refinement and testing. *International Journal of Social Research Methodology*, *24*(1), 123–134. https://doi.org/10.1080/13645579.2020.1803528

Dalkin, S. M., Greenhalgh, J., Jones, D., Cunningham, B., & Lhussier, M. (2015). What's in a mechanism? Development of a key concept in realist evaluation. *Implementation Science*, *10*(1), 49. https://doi.org/10.1186/s13012-015-0237-x

Dalkin, S., Lhussier, M., Williams, L., Burton, C. R. & Rycroft-Malone, J. (2018). Exploring the use of soft systems methodology with realist approaches: A novel way to map programme complexity and develop and refine programme theory. *Evaluation*, *24*(1), 84–97. https://doi.org/10.1177/1356389017749036

Dalkin, S., & McEwan, K. (2022). *Managing messiness in the real research world using NVivo*. https://mediaspace.nottingham.ac.uk/media/Managing%20Messiness%20in%20the%20Real%20Research%20World%20Trimmed%20Recording/1_4qn10qlt

Danermark, B. (2019). Applied interdisciplinary research: A critical realist perspective. *Journal of Critical Realism*, *18*(4), 368–382. https://doi.org/10.1080/14767430.2019.1644983

Danermark, B., Ekström, M., & Karlsson, J. Ch. (2019). *Explaining society: Critical realism in the social sciences*. Routledge.

Daston, L., (2005). Scientific error and the ethos of belief. *Social Research*, 1–28.

De Ries, K. E., Schaap, H., van Loon, A. M. M. J. A. P., Kral, M. M. H., & Meijer, P. C. (2022). A literature review of open-ended concept maps as a research instrument to study knowledge and learning. *Quality & Quantity*, *56*, 73–107. https://doi.org/10.1007/s11135-021-01113-x

De Souza, D. E. (2013.). Elaborating the Context-Mechanism-Outcome configuration (CMOc) in realist evaluation: A critical realist perspective. *Evaluation*, *19*(2), 141–154. https://doi.org/10.1177/1356389013485194

De Weger, E., Van Vooren, N., Wong, G., Dalkin, S., Marchal, B., Drewes, H., & Baan, C. (2020). What's in a realist configuration? Deciding which causal configurations to use, how, and why. *International Journal of Qualitative Methods*, *19*, 1–8. https://doi.org/10.1177/1609406920938577

Dean, K., Joseph, J., Roberts, J. M., & Wight, C. (2006). Realism, philosophy and social science. *Realism, Philosophy & Social Science*, 1–199. https://doi.org/10.1057/9780230502079

Delgado-Rodriguez, M. & Llorca, J., (2004). Bias. *Journal of Epidemiology & Community Health*, *58*(8), 635–641. https://doi.org/10.1136/jech.2003.008466

Department for International Development. (2020). FCDO Ethical Guidance for Research, Evaluation and Monitoring Activities, Last updated 23 January 2020 https://www.gov.uk/government/publications/dfid-ethical-guidance-for-research-evaluation-and-monitoring-activities

DOHaD World Congress 2022 | DOHaD Canada. (n.d.). https://dohad.utoronto.ca/dohadworldcongress2022/

Domecq, J. P., Prutsky, G., Elraiyah, T., Wang, Z., Nabhan, M., Shippee, N., Brito, J. P., Boehmer, K., Hasan, R., Firwana, B., Erwin, P., Eton, D., Sloan, J., Montori, V., Asi, N., Dabrh, A. M. A., & Murad, M. H. (2014). Patient engagement in research: A systematic review. *BMC Health Services Research*, *14*, 89. https://doi.org/10.1186/1472-6963-14-89

Douglas, J.D. (2015). *Social meanings of suicide*. Princeton University Press.

Drummond, C & Fischhoff, B. (2019) Does "putting on your thinking cap" reduce myside bias in evaluation of scientific evidence? *Thinking & Reasoning*, *25*(4), 477–505, https://doi.org/10.1080/13546783.2018.1548379

Durkheim, E. (1897/1951). *Suicide: A study in sociology*. The Free Press.

Edwards, P. K., O'Mahoney, J., & Vincent, S. (Eds.). (2014). *Studying organizations using critical realism: A practical guide*. OUP Oxford.

Elder-Vass, D. (2010). The causal power of social structures: Emergence, structures and agency. In *Structure (first)*. Cambridge University Press. https://doi.org/10.1017/CBO9780511761720

Elder-Vass, D. (2015). Developing social theory using critical realism. *Journal of Critical Realism*, *14*(1), 80–92. https://doi.org/10.1179/1476743014Z.00000000047

Emmel, N. (2013). *Sampling and choosing cases in qualitative research: A realist approach*. SAGE.

Emmel, N., Greenhalgh, J., Manzano, A., Monaghan, M., & Dalkin, S. (Eds.) (2018). *Doing realist research*. SAGE.

Fakoya, I., Cole, C., Larkin, C., Punton, M., Brown, E. & Ballonoff Suleiman, A. (2022). Enhancing human-centered design with youth-led participatory action research approaches for adolescent sexual and reproductive health programming. *Health Promotion Practice*, *23*, 25–31. https://doi.org/10.1177/15248399211003544

Falzon, M.A. (2016). *Multi-sited ethnography: Theory, praxis and locality in contemporary research*. Routledge.

Farrell, G. (2013). Five tests for a theory of the crime drop. *Crime Science*, *2*, 5. https://doi.org/10.1186/2193-7680-2-5

Farrell, G., Laycock, G. & Tilley, N. (2015). Debuts and legacies: The crime drop and the role of adolescence-limited and persistent offending. *Crime Science 4*, 16. https://doi.org/10.1186/s40163-015-0028-3

Faulds, H. (1880). On the skin-furrows of the hand. *Nature*, October 28th, 605.

Federmeier, K. D., Jongman, S. R., & Szewczyk, J. M. (2020). Examining the role of general cognitive skills in language processing: A window into complex cognition. *Current Directions in Psychological Science*, *29*(6), 575–582. https://doi.org/10.1177/0963721420964095

Fisher C., & Downes, B. (2008). Performance measurement and metric manipulation in the public sector, *Business Ethics: A European Review*, *17*, 245–258. https://doi.org/10.1111/j.1467-8608.2008.00534.x

Fletcher-Hildebrand, S., Alimezelli, H., Carr, T., Lawson, K., Ali, A., & Groot, G. (2021). Understanding the impact of a residential housing programme for people living with HIV/AIDS: A realist evaluation protocol. *BMJ Open*, *11*(4), e044522. https://doi.org/10.1136/bmjopen-2020-044522

Foreign, Commonwealth & Development Office. (2023a). *FCDO evaluation strategy.* Updated 4 September 2023, https://www.gov.uk/government/publications/fcdo-evaluation-strategy/fcdo-evaluation-strategy–2#outcome-2-high-quality-evaluation-evidence-is-produced-2

Foreign, Commonwealth & Development Office. (2023b). *UK International Climate Finance results*. 28 September 2023 https://www.gov.uk/guidance/uk-international-climate-finance-results#evaluation-reports

French, J., & Morgan, R. (2015). An experimental investigation of the indirect transfer and deposition of gunshot residue: Further studies carried out with SEM–EDX analysis. *Forensic Science International*, *247*, 14–17. https://doi.org/10.1016/j.forsciint.2014.10.023

Fuji, L. A. (2018). *Interviewing in social science research. A relational approach*. Routledge.

Fusco, F., Marsilio, M. & Guglielmetti, C. (2020). Co-production in health policy and management: A comprehensive bibliometric review. *BMC Health Services Research*, *20*, 504. https://doi.org/10.1186/s12913-020-05241-2

Galdas, P. (2017). Revisiting bias in qualitative research: Reflections on its relationship with funding and impact. *International Journal of Qualitative Methods*, *16*(1), p.1609406917748992. https://doi.org/10.1177/1609406917748992

Garfinkel, H. (1967) *Studies in ethnomethodology*. Prentice Hall.

Garrett, B. (2018). *Empirical nursing: The art of evidence-based care*. Emerald Publishing. https://doi.org/10.1108/9781787438132

Gilmore, B. (2019). Realist evaluations in low- and middle-income countries: Reflections and recommendations from the experiences of a foreign researcher. *BMJ Global Health*, *4*(5), e001638. https://doi.org/10.1136/bmjgh-2019-001638

Gilmore, B., McAuliffe, E., Power, J., & Vallières, F. (2019). Data analysis and synthesis within a realist evaluation: Toward more transparent methodological approaches. *International Journal of Qualitative Methods*, *18*, 1–11. https://doi.org/10.1177/1609406919859754

Glaser, B., & Strauss, A. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge.

Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017). Visual methodologies in qualitative research. *International Journal of Qualitative Methods*, *16*(1), 160940691774821. https://doi.org/10.1177/1609406917748215

Glynn, A. N. (2013). What can we learn with statistical truth serum? Design and analysis of the list experiment. *Public Opinion Quarterly*, *77*, 159–72. https://doi.org/10.1093/poq/nfs070

Goldsmith, L. J. (2021). Using framework analysis in applied qualitative research. *The Qualitative Report*, *26*(6), 2061–2076. https://doi.org/10.46743/2160-3715/2021.5011

Gorski, P. (2013). Beyond the fact/value distinction: Ethical naturalism and the social sciences. *Society*, *50*(6), 543–553. https://doi.org/10.1007/s12115-013-9709-2

Government of Canada, CIHR. (2005).Ethics of Health Research Involving First Nations, Inuit and Métis People – CIHR. https://cihr-irsc.gc.ca/e/29339.html

Government of Canada, CIHR. (2014). Strategy for Patient-Oriented Research – Patient Engagement Framework – CIHR. https://cihr-irsc.gc.ca/e/48413.html

Greenhalgh, J., & Manzano, A., (2021). Understanding 'context' in realist evaluation and synthesis. *International Journal of Social Research Methodology*, *25*(5), 583–595. https://doi.org/10.1080/13645579.2021.1918484

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2016). *Quality standards for realist evaluation. For evaluators and peer-reviewers*. http://ramesesproject.org/media/RE_Quality_Standards_for_evaluators_and_peer_reviewers.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017a). *Frequently asked questions about realist evaluation*. The RAMESES II Project, https://www.ramesesproject.org/media/RAMESES_II_FAQs_about_realist_evaluation.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017b). *The realist interview*. The RAMESES II Project (www.ramesesproject.org). https://www.ramesesproject.org/media/RAMESES_II_Realist_interviewing.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017c). *Philosophies and evaluation design*. https://ramesesproject.org/media/RAMESES_II_Philosophies_and_evaluation_design.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017d). *Realist evaluation, realist synthesis, realist research – what's in a name?* https://www.ramesesproject.org/media/RAMESES_II_RE_RS_RR_whats_in_a_name.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017e). *"Theory" in realist evaluation*. The RAMESES II Project https://ramesesproject.org/media/RAMESES_II_Theory_in_realist_evaluation.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017f). *What is a mechanism? What is a programme mechanism?* The RAMESES II Project https://ramesesproject.org/media/RAMESES_II_What_is_a_mechanism.pdf

Greenhalgh, T., Pawson, R., Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., & Jagosh, J. (2017g). *What realists mean by context*. https://www.ramesesproject.org/media/RAMESES_II_Context.pdf

Griffiths, S., Weston, L., Morgan-Trimmer, S., Wheat, H., Gude, A., Manger, L., Oh, T. M., Clarkson, P., Quinn, C., Sheaff, R., Clark, M., Sherriff, I., & Byng, R. (2022). Engaging stakeholders in realist programme theory building: Insights from the prospective phase of a primary care dementia support study. *International Journal of Qualitative Methods*, *21*. https://doi.org/10.1177/16094069221077521

Groot, G., Waldron, T., Barreno, L., Cochran, D., & Carr, T. (2020). Trust and world view in shared decision making with indigenous patients: A realist synthesis. *Journal of Evaluation in Clinical Practice*, *26*(2), 503–514. https://doi.org/10.1111/jep.13307

Groot, G., Waldron, T., Carr, T., McMullen, L., Bandura, L.-A., Neufeld, S.-M., & Duncan, V. (2017). Development of a program theory for shared decision-making: A realist review protocol. *Systematic Reviews*, *6*(1), 114. https://doi.org/10.1186/s13643-017-0508-5

Gubrium, A. (2009). Digital storytelling: An emergent method for health promotion research and practice. *Health Promotion Practice*, *10*(2), 186–19. https://doi.org/10.1177/1524839909332600

Gubrium, J. F. & Holstein, J. A. (2014). Narrative practice and the transformation of interview subjectivity In Gubrium, J. F., Holstein, J. A., Marvasti, A. B. & Mckinney, K. (eds.) *The Sage handbook of interview research: The complexity of the craft*. SAGE.

Hall, S. M. (2024). Oral Histories and Futures: Researching crises across the life-course and the life-course of crises. *Area*, *56*(1), e12904. https://doi.org/10.1111/area.12904

Halvorsrud, K., Rhodes, J., Webster, G. M., Francis, J., Haarmans, M., Dawkins, N., Nazroo, J., & Bhui, K. (2019). Photovoice as a promising public engagement approach: Capturing and communicating ethnic minority people's lived experiences of severe mental illness and its treatment. *BMJ Open Quality*, *8*, 665. https://doi.org/10.1136/bmjoq-2019-000665

Hansen, M. B., & Vedung, E. (2010). Theory-based stakeholder evaluation. *American Journal of Evaluation*, *31*(3), 295–313. https://doi.org/10.1177/1098214010366174
Hanway, P., Akehurst, L., Vernham, Z., & Hope, L. (2021). The effects of cognitive load during an investigative interviewing task on mock interviewers' recall of information. *Legal & Criminological Psychology*, *26*(1), 25–41. https://doi.org/10.1111/lcrp.12182
Harré, R. & Moghaddam, F. M. (2016). *Questioning causality: Scientific explorations of cause and consequence across social context*. Bloomsbury Publishing
Harris, K. (2020). Building capacity in program practitioner realist evaluation through application of CAE principles. *Collaborative Approaches to Evaluation: Principles in Use*, 161–184. https://doi.org/10.4135/9781544344669.N7
Hastings, C. (2021). A critical realist methodology in empirical research: Foundations, process, and payoffs. *Journal of Critical Realism*, *20*(5), 458–473. https://doi.org/10.1080/14767430.2021.1958440
Hebbar, P. B. (2023). Implementation of tobacco control policies in India: A realist evaluation. [Doctoral Thesis, Maastricht University]. Maastricht University. https://doi.org/10.26481/dis.20231108ph
Henry, G. T., Julnes, G., & Mark, M. M. (1998). Realist evaluation: An emerging theory in support of practice. *New Directions for Evaluation*, *78*, 1–109.
Hergenrather, K. C., Rhodes, S. D., Cowan, C. A., Bardhoshi, G., & Pula, S. (2009). Photovoice as community-based participatory research: A qualitative review. *American Journal of Health Behavior*, *33*(6), 686–698. https://doi.org/10.5993/AJHB.33.6.6
Hinds, K., & Dickson, K. (2021). Realist synthesis: A critique and an alternative. *Journal of Critical Realism*, *20*(1), 1–17. https://doi.org/10.1080/14767430.2020.1860425
HMG (August2023) International Climate Finance: Overview. HMG (October 2023): https://www.gov.uk/government/publications/uk-international-climate-finance-results-2023/uk-international-climate-finance-results-2023
Hoorens, V. (2014). Positivity bias. In: Michalos AC (Ed.). *Encyclopedia of quality of life and well-being research*. (p. 4938–4941). Springer..
Howe, J. (2022). Delivering evidence-based rural community stroke services: A realist evaluation, University of Nottingham.
Hutcheson, G., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. SAGE.
Ibrahim, M.A. & Spitzer, W.O. (1979). The case control study: The problem and The Prospect. *In the case-control study consensus and controversy* (pp. 139–144). Pergamon.
Indigenous DOHaD Gathering. (2022). Vancouver BC Canada | August 24-26 2022. https://indigenousdohadgathering.org/
Intercollegiate Stroke Working Party. (2016). National Clinical Guideline for Stroke. https://www.hse.ie/eng/about/who/cspd/ncps/stroke/resources/2016-national-clinical-guideline-for-stroke-5th-edition.pdf
International HIV/AIDS Alliance. (2006). Tools together now!: 100 participatory tools to mobilise communities for HIV/AIDS | Participatory Methods. International HIV/AIDS Alliance. https://www.participatorymethods.org/resource/tools-together-now-100-participatory-tools-mobilise-communities-hivaids
Irvine, A. (2011). Duration, dominance and depth in telephone and face-to-face interviews: A comparative exploration. *International Journal of Qualitative Methods*, *10*(3), 202–220. https://doi.org/10.1177/160940691101000302
Irvine, F., Roberts, G., & Bradbury-Jones, C. (2008). The researcher as insider versus the researcher as outsider: Enhancing rigour through language and cultural sensitivity. In P. Liamputtong (Ed.), *Doing cross-cultural research: Ethical and methodological perspectives* (pp. 35–48). Springer. https://doi.org/10.1007/978-1-4020-8567-3_3
Itad (2024) https://www.itad.com/

Itzchakov, G., & Grau, J. (2022). High-quality listening in the age of COVID-19: A key to better dyadic communication for more effective organizations. *Organizational Dynamics*, *51*(2), 100820. https://doi.org/10.1016/j.orgdyn.2020.100820

Jackson, S. F., & Kolla, G. (2012). A new realistic evaluation analysis method: Linked coding of context, mechanism, and outcome relationships. *American Journal of Evaluation*, *33*(3), 339–349. https://doi.org/10.1177/1098214012440030

Jager, A., Papoutsi, C., & Wong, G. (2023a). The usage of data in NHS primary care commissioning: A realist evaluation. *BMC Primary Care*, *24*(1), 275. https://doi.org/10.1186/s12875-023-02193-4

Jager, A., Wong, G., Papoutsi, C., & Roberts, N. (2023b). The usage of data in NHS primary care commissioning: A realist review. *BMC Medicine*, *21*(1), 236. https://doi.org/10.1186/s12916-023-02949-w

Jagosh, J. (2020). Retroductive theorising in Pawson and Tilley's applied scientific realism. *Journal of Critical Realism*, *19*(2), 121–130. https://doi.org/10.1080/14767430.2020.1723301

Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., Cargo, M., Green, L. W., Herbert, C. P., & Pluye, P. (2015). A realist evaluation of community-based participatory research: Partnership synergy, trust building and related ripple effects. *BMC Public Health*, *15*(1), 725. https://doi.org/10.1186/s12889-015-1949-1

Johnson, T. P., & Van de Vijver, F. J. (2003). Social desirability in cross-cultural research. *Cross-Cultural Survey Methods*, *325*, 195–204.

Joseph, J. (2007). Philosophy in international relations: A scientific realist approach. *Millennium: Journal of International Studies*, *35*(2), 345–359. https://doi.org/10.1177/03058298070350021401

Kanuha, V. K. (2000). "Being" native versus "going native": Conducting social work research as an insider. *Social Work*, *45*(5), 439–447. https://doi.org/10.1093/sw/45.5.439

Karl, K. A., Peluchette, J. V., & Aghakhani, N. (2022). Virtual work meetings during the COVID-19 pandemic: The good, bad, and ugly. *Small Group Research*, *53*(3), 343–365. https://doi.org/10.1177/10464964211015286

Kaspar, H., Abegg, A. & Reddy, S. (2023). Of odysseys and miracles: A narrative approach on therapeutic mobilities for ayurveda treatment. *Social Science & Medicine*, *334*, 116152. https://doi.org/10.1016/j.socscimed.2023.116152

Keen, S., Lomeli-Rodriguez, M., & Joffe, H. (2022). From challenge to opportunity: Virtual qualitative research during COVID-19 and beyond. *International Journal of Qualitative Methods*, *21*, 160940692211050. https://doi.org/10.1177/16094069221105075

Kelling, G.L. & Coles, C.M. (1996) *Fixing broken windows: Restoring order and reducing crime in our communities*. Simon & Schuster.

Koper, C. S. (2006). Just enough police presence: Reducing crime and disorderly behaviour by optimizing patrol time in crime hot spots. *Justice Quarterly*, *26*, 649–672. https://doi.org/10.1080/07418829500096231

Kovacs, L., & Corrie, S. (2016). What can realist evaluation tell us about how coaching interventions work? *The Coaching Psychologist*, *12*(2), 59–66. https://doi.org/10.53841/bpstcp.2016.12.2.59

Kreuter, F., Presser, S. & Tourangeau, R., (2008). Social desirability bias in CATI, IVR, and web surveys: The effects of mode and question sensitivity. *Public Opinion Quarterly*, *72*(5), 847–865. https://doi.org/10.1093/poq/nfn063

Kuha, J., & Jackson, J. (2014). The item count method for sensitive survey questions: Modelling criminal behaviour. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, *63*, 321–341. https://doi.org/10.1111/rssc.12018

Kvale, S. (1996). *Interview views: An introduction to qualitative research interviewing*. SAGE.

Kvale, S. & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. SAGE.

Lacouture, A., Breton, E., Guichard, A., & Ridde, V. (2015). The concept of mechanism from a realist approach: A scoping review to facilitate its operationalization in public health program evaluation. *Implementation Science*, *10*(153), 1–14. https://doi.org/10.1186/s13012-015-0345-7

Langhorne, P., & Baylan, S. (2017). Early supported discharge services for people with acute stroke. *Cochrane Database of Systematic Reviews* (7). https://doi.org/10.1002/14651858.CD000443.pub4

Lawson, S., Mullan, J., Wong, G., Zaman, H., Booth, A., Watson, A., & Maidment, I. (2021). Family carers' experiences of managing older relative's medications: Insights from the MEMORABLE study. *Patient Education and Counseling*. https://doi.org/https://doi.org/10.1016/j.pec.2021.12.017

Lemire, S., Kwako, A., Nielsen, S. B., Christie, C. A., Donaldson, S. I., & Leeuw, F. L. (2020). What is this thing called a mechanism? Findings from a review of realist evaluations. *New Directions for Evaluation*, *2020*(167), 73–86. https://doi.org/10.1002/ev.20428

Lemire, S. T., Nielsen, S. B., & Dybdal, L. (2012). Making contribution analysis work: A practical framework for handling influencing factors and alternative explanations. *Evaluation*, *18*(3), 294–309. https://doi.org/10.1177/1356389012450654

Lemire, S., Porowski, A., Mumma, K. (2023). How we model matters – Visualizing program theories. *Abt method guide*. Rockville, MD: Abt Associates. https://www.abtglobal.com/insights/events/how-we-model-matters-visualizing-program-theories#:~:text=If%20you%27re%20trying%20to,world%20complexities%20of%20program%20theories.

Lennon-Dearing, R., & Hirschi, M. (2019). A photovoice empowerment intervention for women living with HIV. *Journal of HIV/AIDS & Social Services*, *18*(4), 347–366. https://doi.org/10.1080/15381501.2019.1658683

Lennon-Dearing, R., & Price, J. (2018). Women living with HIV tell their stories with photovoice. *Journal of Human Behavior in the Social Environment*, *28*(5), 588–601. https://doi.org/10.1080/10911359.2018.1443867

Leon, C.M., Aizpurua, E. & van der Valk, S., (2021). The impact of confidentiality assurances on participants' responses to sensitive questions. *International Journal of Public Opinion Research*, *33*(4), 1024–1038. https://doi.org/10.1093/ijpor/edaa039

León, F. R., Lundgren, R., Huapaya, A., Sinai, I., & Jennings, V. (2007). Challenging the courtesy bias interpretation of favorable clients' perceptions of family planning delivery. *Evaluation Review*, *31*(1), 24–42. https://doi.org/10.1177/0193841X06289044

Liebenberg, L. (2018). Thinking critically about photovoice: Achieving empowerment and social change. *International Journal of Qualitative Methods*, *17*(1), 1–7. https://doi.org/10.1177/1609406918757631

Lindsay, C., Baruffati, D., Mackenzie, M., Ellis, D. A., Major, M., O'Donnell, K., Simpson, S., Williamson, A., Duddy, C., & Wong, G. (2023). A realist review of the causes of, and current interventions to address 'missingness' in health care. *NIHR Open Research*, *3*(33). https://doi.org/https://doi.org/10.3310/nihropenres.13431.1

Litorp, H., Mgaya, A., Mbekenga, C. K., Kidanto, H. L., Johnsdotter, S. & Essen, B. (2015). Fear, blame and transparency: Obstetric caregivers' rationales for high caesarean section rates in a low-resource setting. *Social Science & Medicine*, *143*, 232–40. https://doi.org/10.1016/j.socscimed.2015.09.003

Little, D. (1991). *Varieties of social explanation: An introduction to the philosophy of social science*. Westview Press.

Liu, X., & Burnett, D. (2022). Insider-outsider: Methodological reflections on collaborative intercultural research. *Humanities and Social Sciences Communications*, *9*(1), 314. https://doi.org/10.1057/s41599-022-01336-9

Lo Iacono, V., Symonds, P., & Brown, D. H. K. (2016). Skype as a tool for qualitative research interviews. *Sociological Research Online*, *21*(2), 103–117. https://doi.org/10.5153/sro.3952

Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods*, *19*, 160940692093787. https://doi.org/10.1177/1609406920937875

Lobe, B., Morgan, D. L., & Hoffman, K. (2022). A systematic comparison of in-person and video-based online interviewing. *International Journal of Qualitative Methods*, *21*, 160940692211270. https://doi.org/10.1177/16094069221127068

Loewenson, R., Laurell, A., Hogstedt, C., D'Ambruoso & Shroff, Z. (2014). *Participatory action research in health systems: A methods reader,* Harare, TARSC, AHPSR, WHO, IDRC Canada, EQUINET. https://equinetafrica.org/sites/default/files/uploads/documents/PAR_Methods_Reader2014_for_web.pdf

Loving, T.J. & Agnew, C.R., (2001). Socially desirable responding in close relationships: A dual-component approach and measure. *Journal of Social and Personal Relationships*, *18*(4), 551–573. https://doi.org/10.1177/0265407501184007

Macdonald, C. (2012). Understanding participatory action research: A qualitative research methodology option. *Canadian Journal of Action Research*, *13*, 34–50. https://doi.org/10.33524/cjar.v13i2.37

Maguire, M. (2007). Crime data and statistics. In M. Maguire, R. Morgan & R Reiner (Eds.). *The Oxford handbook of criminology* (4th Ed.). (pp.241–301), Oxford University Press.

Maidment, I., Lawson, S., Wong, G., Booth, A., Watson, A., McKeown, J., Zaman, H., Mullan, J., & Bailey, S. (2020). Medication management in older people: The MEMORABLE realist synthesis. *Health Service Delivery Research*, *8*, 26. https://doi.org/10.3310/hsdr08260

Maidment, I. D., Wong, G., Duddy, C., Upthegrove, R., Oduola, S., Robotham, D., Higgs, S., Ahern, A., & Birdi, G. (2022). REalist synthesis of non-pharmacologicaL interVEntions for antipsychotic-induced weight gain (RESOLVE) in people living with severe mental illness (SMI). *Systematic Reviews*, *11*(1), 42. https://doi.org/10.1186/s13643-022-01912-9

Mainland, D. (1958). Notes on the planning and evaluation of research, with examples from cardiovascular investigations. Part II. *American Heart Journal*, *55*: 824–837.

Malengreaux, S., Doumont, D., Scheen, B., Van Durme, T. & Aujoulat, I. (2022). Realist evaluation of health promotion interventions: A scoping review. *Health Promotion International*, *37*. https://doi.org/10.1093/heapro/daac136

Malterud, K. (2012). Systematic text condensation: A strategy for qualitative analysis. *Scandinavian Journal of Public Health*, *40*(8), 795–805. https://doi.org/10.1177/1403494812465030

Mannay, D. (2010). Making the familiar strange: Can visual research methods render the familiar setting more perceptible? *Qualitative Research*, *10*(1), 91–111. https://doi.org/10.1177/1468794109348684

Manzano, A. (2016). The craft of interviewing in realist evaluation. *Evaluation*, *22*(3), 342–360. https://doi.org/10.1177/1356389016638615

Manzano, A. (2022). Conducting focus groups in realist evaluation. *Evaluation*, *28*(4), 406–425. https://doi.org/10.1177/13563890221124637

Manzano, A. (2023). Focus Groups. LIEPP Methods Brief n°37, 2023, 5 p. ffhal-04159342 https://sciencespo.hal.science/hal-04159342

Manzano, A. (2024). User and Stakeholder Involvement in Realist Evaluation. Sciences Po LIEPP Working Paper n°158, January 2024. https://sciencespo.hal.science/hal-04410009

Manzano, A., & Pawson, R. (2014). Evaluating deceased organ donation: A programme theory approach. *Journal of Health Organization & Management*, *28*(3), 366–385. https://doi.org/10.1108/JHOM-07-2012-0131

Marchal, B., Kegels, G. & Van Belle, S. (2018). Theory and realist methods. In: Emmel, N., Greenhalgh, J., Manzano, A., Monaghan, M. & Dalkin, S. (eds.) *Doing realist research*. SAGE.

Marchal, B., van Belle, S., van Olmen, J., Hoeree, T., & Kegels, G. (2012). Is realist evaluation keeping its promise? A review of published empirical studies in the field of health systems. *Evaluation*, *18*(2), 192–212. https://doi.org/10.1177/1356389012442444

Mark, M. M., Henry, G. T., & Julnes, G. (1998). A realist theory of evaluation practice. *New Directions for Evaluation*, *1998*(78), 3–32. https://doi.org/10.1002/ev.1098

Martin, P., & Tannenbaum, C. (2017). A realist evaluation of patients' decisions to deprescribe in the EMPOWER trial. *BMJ Open*, *7*(4), e015959–e015959. https://doi.org/10.1136/bmjopen-2017-015959

MAXQDA. (2024). https://www.maxqda.com.

Maxwell, J.A., (2012). *A realist approach for qualitative research*. SAGE.

Mays, N. & Pope, C., (1995). Qualitative research: Rigour and qualitative research. *BMJ 311*(6997), 109–112. https://doi.org/10.1136/bmj.311.6997.109

Mbava, N. P., & Chapman, S. (2020). Adapting realist evaluation for Made in Africa evaluation criteria. *African Evaluation Journal*, *8*(1), 11. https://doi.org/10.4102/aej.v8i1.508

McCall, G.J. (1984). Systematic field observation. *Annual Review of Sociology*, *10*, 263–282.

McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing*, *11*(1), 66–78. https://doi.org/10.1177/1744987106060192

McLaughlin, D. J., Braver, T. S., & Peelle, J. E. (2021). Measuring the subjective cost of listening effort using a discounting task. *Journal of Speech, Language, & Hearing Research*, *64*(2), 337–347. https://doi.org/10.1044/2020_JSLHR-20-00086

Mehdipanah, R., Malmusi, D., Muntaner, C., & Borrell, C. (2013). An evaluation of an urban renewal program and its effects on neighborhood resident's overall wellbeing using concept mapping. *Health & Place*, *23*, 9–17. https://doi.org/10.1016/j.healthplace.2013.04.009.

Melro, C. M. & Ballantyne, C. T. (2021). Decolonising community-based participatory research: Applying arts-based methods to transformative learning spaces In: Liamputtong, P. (ed.) *Handbook of qualitative cross-cultural research methods. A social science perspective*. Edward Elgar.

Mercier, H., & Sperber, D. (2017). *The enigma of reason*. Harvard University Press.

Merriam, S. B., Johnson-Bailey, J., Lee, M.-Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, *20*(5), 405–416. https://doi.org/10.1080/02601370120490

Merton, R. K. (1967). On sociological theories of the middle-range. In: Merton RK (ed.) *On theoretical sociology: Five essays old and new*. The Free Press, 39–72

Merton R. K. (1942/1973). The normative structure of science. In: Merton RK (ed.) *The sociology of science. Theoretical and empirical investigations*. (pp. 267–278). The University of Chicago Press,

Merton, R. K. & Kendall, P. L. (1946). The focused interview. *American Journal of Sociology*, *51*(6), 541–557.

Miles, M. & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. SAGE.

Miller, G. (1997). Introduction: Context and method in qualitative research. In Miller, G. & Dingwall, R. *Context and method in qualitative research*. SAGE.

Milne, B., & Powell, M. (2011). *Investigative interviewing*. Emerald. https://www.academia.edu/download/79733121/powell-investigative-2010.pdf

Mirzoev, T., Etiaba, E., Ebenso, B., Uzochukwu, B., Ensor, T., Onwujekwe, O., Huss, R., Ezumah, N. & Manzano, A. (2020). Tracing theories in realist evaluations of

large-scale health programmes in low- and middle-income countries: Experience from Nigeria. *Health Policy & Planning*, *35*(9) 1244–1253 https://doi.org/10.1093/heapol/czaa076

Mozambique-Canada Maternal Health Project (2018) https://maternalhealthmozcan.ca/

Mukumbang, F. C., & van Wyk, B. (2020). Leveraging the photovoice methodology for critical realist theorizing. *International Journal of Qualitative Methods*, 19, https://doi.org/10.1177/1609406920958981

Mukumbang, F. C. (2023). Retroductive theorizing: A contribution of critical realism to mixed methods research. *Journal of Mixed Methods Research*, *17*(1), 93–114. https://doi.org/10.1177/15586898211049847

Mukumbang, F. C., De Souza, D. E., & Eastwood, J. G. (2023). The contributions of scientific realism and critical realism to realist evaluation. *Journal of Critical Realism*, *22*(3), 504–524. https://doi.org/10.1080/14767430.2023.2217052

Mukumbang, F., Marchal, B., Belle, S. & Van Wyk, B. (2020). Using the realist interview approach to maintain theoretical awareness in realist studies. *Qualitative Research 20*(4) 485–515. https://doi.org/10.1177/1468794119881985

Mukumbang, F. C., Marchal, B., Van Belle, S., & Van Wyk, B. (2018). A realist approach to eliciting the initial programme theory of the antiretroviral treatment adherence club intervention in the Western Cape Province, South Africa. *BMC Medical Research Methodology*, *18*(1), 1–16. https://doi.org/10.1186/s12874-018-0503-0

Mukumbang, F. C., & van Wyk, B. (2020). Leveraging the photovoice methodology for critical realist theorizing. *International Journal of Qualitative Methods*, *19*(1), 1–15. https://doi.org/10.1177/1609406920958981

Murphy, E. A. (1976). *The logic of medicine*. Johns Hopkins University Press.

Nakkeeran, N., Sacks, E., Srinivas, P. N., Juneja, A., Gaitonde, R., Garimella, S. & Topp, S. (2021). Beyond behaviour as individual choice: A call to expand understandings around social science in health research. *Wellcome Open Research*, *6*(212), 1–9. https://doi.org/10.12688/wellcomeopenres.17149.1

Ng, C. G., Ting, S. Q., Saifi, R. A., & Kamarulzaman, A. B. (2023). Ethical issues in photovoice studies involving key populations: A scoping review. *Asian Bioethics Review*, 1–21. https://doi.org/10.1007/S41649-023-00264-3

Nichol, A. J., Hastings, C., & Elder-Vass, D. (2023). Putting philosophy to work: Developing the conceptual architecture of research projects. *Journal of Critical Realism*, *22*(3), 364–383. https://doi.org/10.1080/14767430.2023.2217054

Nielsen, S. B., Jaspers, S. Ø., & Lemire, S. (2023). The curious case of realist trials: Oxymoron or methodological unicorn? *Evaluation*, *30*(1), 120–137. https://doi.org/10.1177/13563890231200291

Nielsen, S. B., Lemire, S., & Tangsig. S. (2022). Unpacking context in realist evaluations: Findings from a comprehensive review. *Evaluation*, *28*(1), 91–112. https://doi.org/10.1177/13563890211053032

Norrie, A. (2010). *Dialectic and difference*. Routledge.

Novick, G. (2008). Is there a bias against telephone interviews in qualitative research? *Research in Nursing & Health*, *31*(4), 391–398. https://doi.org/10.1002/nur.20259

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1). https://doi.org/10.1177/1609406917733847

O'Rourke, K., Abdulghani, N., Yelland, J., Newton, M., & Shafiei, T. (2022). Cross-cultural realist interviews: An integration of the realist interview and cross-cultural qualitative research methods. *Evaluation Journal of Australasia*, *22*(1), 5–17. https://doi.org/10.1177/1035719x211055229

Office for National Statistics (ONS). (2023). *Crime in England and Wales, quality and methodology information (QMI) report*. ONS. https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/methodologies/crimeinenglandandwalesqmi

Online Etymology Dictionary. (2023). https://www.etymonline.com/search?q=bias

Oroviogoicoechea, C., & Watson, R. (2009). A quantitative analysis of the impact of a computerised information system on nurses' clinical practice using a realistic evaluation framework. *International Journal of Medical Informatics*, *78*(12), 839–849. https://doi.org/10.1016/j.ijmedinf.2009.08.008.

Ospina, S. M., Burns, D., Howard, J. (2021). Navigating the complex and dynamic landscape of participatory research and inquiry. *The Sage handbook of participatory research and inquiry.* SAGE.

Pals, R. A., Olesen, K., & Willaing, I. (2016). What does theory-driven evaluation add to the analysis of self-reported outcomes of diabetes education? A comparative realist evaluation of a participatory patient education approach. *Patient Education and Counseling*, *99*(6), 995–1001. https://doi.org/10.1016/j.pec.2016.01.006

Pant, I., Khosla, S., Lama, J. T., Shanker, V., AlKhaldi, M., El-Basuoni, A., Michel, B., Bitar, K., & Nsofor, I. M. (2022). Decolonising global health evaluation: Synthesis from a scoping review. *PLOS Global Public Health*, *2*(11), e0000306. https://doi.org/10.1371/journal.pgph.0000306

Paradisi, P., Raglianti, M., & Sebastiani, L. (2021). Online communication and body language. *Frontiers in Behavioral Neuroscience*, *15*, 709365. https://doi.org/10.3389/fnbeh.2021.709365

Parlour, R., & McCormack, B. (2012). Blending critical realist and emancipatory practice development methodologies: Making critical realism work in nursing research. *Nursing Inquiry*, *19*, 308–321. https://doi.org/10.1111/j.1440-1800.2011.00577.x

Pattyn, V., Álamos-Concha, P., Cambré, B., Rihoux, B., & Schalembier, B. (2022). Policy effectiveness through configurational and mechanistic lenses: Lessons for concept development. *Journal of Comparative Policy Analysis: Research & Practice*, *24*(1), 33–50. https://doi.org/10.1080/13876988.2020.1773263

Pawson, R. (1996). Theorizing the interview. *British Journal of Sociology*, *47*(2), 295–314. https://doi.org/10.2307/591728

Pawson, R. (2003). Nothing as practical as a good theory. *Evaluation*, *9*(4), 471–490. https://doi.org/10.1177/135638900300900407

Pawson, R. (2013). *The science of evaluation: A realist manifesto*. SAGE. https://doi.org/10.4135/9781473913820

Pawson, R. (2024). *How to think like a realist*. Edward Elgar.

Pawson, R. (2006a). Digging for nuggets: How 'bad' research can yield 'good' evidence. *International Journal of Social Research Methodology*, *9*(2), 127–142. https://doi.org/10.1080/13645570600595314

Pawson, R. (2006b). *Evidence-based policy: A realist perspective*. SAGE. http://digital.casalini.it/9781847878199

Pawson, R., Greenhalgh, J., Brennan, C., & Glidewell, E. (2014). Do reviews of healthcare interventions teach us how to improve healthcare systems? *Social Science & Medicine*, *114*, 129–137. https://doi.org/10.1016/j.socscimed.2014.05.032

Pawson, R., & Tilley, N. (1994). What works in evaluation research? *The British Journal of Criminology*, *34*(3), 291–306. https://doi.org/10.1093/oxfordjournals.bjc.a048424

Pawson, R., & Tilley, Nick. (1997, 2008). *Realistic evaluation*. SAGE. https://doi.org/10.1177/135638909800400213

Pawson, R. & Tilley, N. (2004). *Realist evaluation*. https://cnxus.org/wp-content/uploads/2022/04/RE_chapter.pdf

Pawson, R., Wong, G., & Owen, L. (2011). Myths, facts and conditional truths: What is the evidence on the risks associated with smoking in cars carrying children? *Canadian Medical Association Journal*, *183*(10), E680–E684. https://doi.org/10.1503/cmaj.100903

Pawson, R., Wong, G. & Owen, L. (2011) Known knowns, known unknowns, unknown unknowns: The predicament of evidence-based policy. *American Journal of Evaluation*, *32*(4), 518–546. https://doi.org/10.1177/1098214011403831

Peelle, J. E. (2018). Listening effort: How the cognitive consequences of acoustic challenge are reflected in brain and behavior. *Ear & Hearing*, *39*(2), 204. https://doi.org/10.1097/AUD.0000000000000494

Peters, U. (2022). What is the function of confirmation bias*? Erkenntnis 87*(3): 1351–1376. https://doi.org/10.1007/s10670-020-00252-1

Pino Gavidia, L. A. & Adu, J. (2022). Critical narrative inquiry: An examination of a methodological approach. *International Journal of Qualitative Methods*, *21*. https://doi.org/10.1177/16094069221081594

Platt, J. (2012). The history of the interview. In Gubrium, J, Holstein, J, Marvasti, A & McKinney, K (ed.), *The SAGE handbook of interview research: The complexity of the craft (2nd ed)*. (pp. 9–26). SAGE.

Popper, K. (1959). *The logic of scientific discovery*. Hutchinson.

Popper, K. (1963/1989). *Conjectures and refutations*. 5th Edition. Routledge and Kegan Paul.

Popper, K. (1972). *Objective knowledge*. Oxford University Press.

Porpora, D. (2015). *Reconstructing sociology: The critical realist approach*. Cambridge University Press.

Porter, S. (2015). The uncritical realism of realist evaluation. *Evaluation*, *21*(1), 65–82. https://doi.org/10.1177/1356389014566134

Pratt, B., Seshadri, T. & Srinivas, P. N. (2020). What should community organisations consider when deciding to partner with researchers? A critical reflection on the Zilla Budakattu Girijana Abhivrudhhi Sangha experience in Karnataka, India. *Health Research Policy & Systems*, *18*. https://doi.org/10.1186/s12961-020-00617-6

Pratt, B., Seshadri, T. & Srinivas, P. N. (2022a). Overcoming structural barriers to sharing power with communities in global health research priority-setting: Lessons from the participation for local action project in Karnataka, India. *Global Public Health*, *17*, 3334–3352. https://doi.org/10.1080/17441692.2022.2058048

Pratt, B., Srinivas, P. N. & Seshadri, T. (2022b). How is inclusiveness in health systems research priority-setting affected when community organizations lead the process? *Health Policy & Planning*, *37*, 811–821. https://doi.org/10.1093/heapol/czac012

Punton, M. & Vogel, I. (2020). Keeping it real: Using mechanisms to promote use in the realist evaluation of the building capacity to use research evidence program. *New Directions for Evaluation*, *2020*(167), 87–100. https://doi.org/10.1002/ev.20427

Punton, M., Vogel, I., Leavy, J., Michaelis, C., & Boydell, E. (2020). Reality bites: Making realist evaluation useful in the real world. Centre for development impact practice paper, 22, 1–13. https://www.ids.ac.uk/publications/reality-bites-making-realist-evaluation-useful-in-the-real-world/

Punton, M., Vogel, I., & Lloyd, R. (2016). *Reflections from a realist evaluation in progress: scaling ladders and stitching theory*. CDI Practice paper, 18, 1–11. https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/11254/CDIPracticePaper_18.pdf;jsessionid=AEC2A5E41EB35647476F7202875DFE3A?sequence=1

Quayle, A. & Sonn, C. (2022). Critical narrative inquiry as psychosocial accompaniment with Aboriginal communities. In: Liamputtong, P. (ed.) *Handbook of cross-cultural research methods: A social science perspective*. Edward Elgar.

Quraishi, M., Irfan, L., Schneuwly Purdie, M., & Wilkinson, M. L. N. (2022). Doing 'judgemental rationality' in empirical research: The importance of depth-reflexivity when researching in prison. *Journal of Critical Realism*, *21*(1), 25–45. https://doi.org/10.1080/14767430.2021.1992735

Radin, B. 2006. *Challenging the performance movement: Accountability, complexity and democratic values*. Georgetown University Press.

Ragin, C. C. (2000). *Fuzzy-set social science*. University of Chicago Press.
RAMESES project website. (2024). https://www.ramesesproject.org/media/RAMESES_II_Working_with_a_librarian.pdf
Rayment-McHugh, S., Adams, D., & McKillop, N. (2021). Introducing a contextual lens to assessment and intervention for young people who engage in harmful sexual behaviour: An Australian case study. *Journal of Children's Services*, *17*(3), 192–204. https://doi.org/10.1108/JCS-06-2021-0024
Redgate, S., Potrac, P., Boocock, E. & Dalkin, S. (2022). Realist evaluation of the football association's post graduate Diploma (PG Dip) in Coach Development, *Sport, Education & Society*, *27*(3), 361–376. https://doi.org/10.1080/13573322.2020.1847066
Reid, S., & Fransman, J. (2021). *Effective consortia working: Literature review and priorities for future research*. https://oro.open.ac.uk/87474/
Renmans, D. (2023). The ResQ approach: Theory building across disciplines using realist evaluation science and QCA. *International Journal of Social Research Methodology*, *26*(4), 469–482. https://doi.org/10.1080/13645579.2022.2052695
Renmans, D., & Pleguezuelo, V. C. (2023). Methods in realist evaluation: A mapping review. *Evaluation & Program Planning*, *97*: 102209. https://doi.org/10.1016/j.evalprogplan.2022.102209
Renmans, D., Sarkar, N., Van Belle, S., Affun-Adegbulu, C., Marchal, B., & Mukumbang, F. C. (2022). Realist evaluation in times of decolonising global health. *The International Journal of Health Planning & Management*, *37*(S1), 37–44. https://doi.org/10.1002/hpm.3530
Ridde, V., Robert, E., Guichard, A., Blaise, P., & Van Olmen, J. (2012). L'approche realist à l'épreuve du reel de l'évaluation des programmes. *The Canadian Journal of Program Evaluation*, *26*(3), 37–59. https://doi.org/10.3138/cjpe.0026.005
Roberts, J. K., Pavlakis, A. E., & Richards, M. P. (2021). It's more complicated than it seems: Virtual qualitative research in the COVID-19 era. *International Journal of Qualitative Methods*, *20*, 160940692110029. https://doi.org/10.1177/16094069211002959
Rohrbasser, A., Wong, G., Mickan, S., & Harris, J. (2022). Understanding how and why quality circles improve standards of practice, enhance professional development and increase psychological well-being of general practitioners: A realist synthesis. *BMJ Open*, *12*(5), e058453. https://doi.org/10.1136/bmjopen-2021-058453
Roller, M. R., & Lavrakas, P. J. (2015). *Applied qualitative research design: A total quality framework approach*. Guilford Publications.
Roulston, K. (2024). Examining the "inside lives" of research interviews. In N. Denzin, Y. Lincoln, M. Giardina, & G. Cannella (Eds.), *The sage handbook of qualitative research* (6th Edition ed.), (pp. 315–331). SAGE.
Royal College of Physicans. (2015). *Post-acute Organisational Audit. Public Report. Phase 2: Organisational audit of post-acute stroke service providers*.
Ruyant, Q. (2021). Semantic realism in the semantic conception of theories. *Synthese*, *198*(8), 7965–7983. https://doi.org/10.1007/s11229-020-02557-8
Rycroft-Malone, J., McCormack, B., Hutchinson, A. M., DeCorby, K., Bucknall, T. K., Kent, B., Schultz, A., Snelgrove-Clarke, E., Stetler, C. B., & Titler, M. (2012). Realist synthesis: Illustrating the method for implementation research. *Implementation Science*, *7*(1), 1–10. https://doi.org/10.1186/1748-5908-7-33
Sackett, D. L. (1979). Bias in analytic research. *Journal Chronic Disease 32*: 51–63.
Salter, K. L., & Kothari, A. (2014). Using realist evaluation to open the black box of knowledge translation: A state-of-the-art review. *Implementation Science*, *9*:115. https://doi.org/10.1186/s13012-014-0115-y
Sanctum Care Group. (2018). Sanctum. Sanctum Group March 13 2018. https://sanctumcaregroup.com/
Santos, M., Sa, A. & Quaresma, J. (2020). Meanings and senses of being a health professional with tuberculosis: An interpretative phenomenological study. *BMJ Open*, *10*, e035873. https://doi.org/10.1136/bmjopen-2019-035873

Saskatchewan Centre for Patient-Oriented Research (SCPOR). (n.d.). *Patient-oriented research level of engagement tool*. https://static1.squarespace.com/static/5c869fd0e666695abe893b3b/t/61b0f04d878a731b75039cdf/1638985805316/PORLET+2021+12+08.pdf

Sayer, A. (1992). *Method in social science: A realist approach*. Routledge.

Sayer, A. (1997). Essentialism, social constructionism, and beyond. *Sociological Review*, *45*(3), 453–487. https://doi.org/10.1111/1467-954X.00073

Sayer, A. (2000). *Realism and social science*. SAGE.

Sayer, A. (2011). *Why things matter to people: Social science, values and ethical life*. Cambridge University Press.

Scheibelhofer (2008) Combining narration-based interviews with topical interviews: Methodological reflections on research practices, *International Journal of Social Research Methodology*, *11*:5, 403–416. https://doi.org/10.1080/13645570701401370

Scheibelhofer, E. (2023). The interpretive interview. An interview form centring on research participants' constructions *International Journal of Qualitative Methods*, *22*, 1–8. https://doi.org/10.1177/16094069231168748

Sedgwick, P. (2014). Non-response bias versus response bias. *BMJ*, *348*, 1–2.

Seitz, J., Benke, I., & Madche, A. (2022). *Fatigued by yourself? Towards understanding the impact of self-view designs in virtual meeting software*. https://aisel.aisnet.org/sighci2022/14/

Sharmil, H., Kelly, J., Bowden, M., Galletly, C., Cairney, I., Wilson, C., Hahn, L., Liu, D., Elliot, P., Else, J., Warrior, T., Wanganeen, T., Taylor, R., Wanganeen, F., Madrid, J., Warner, L., Brown, M. & De Crespigny, C. (2021). Participatory action research-Dadirri-Ganma, using yarning: Methodology co-design with aboriginal community members. *International Journal for Equity in Health*, *20*, 160. https://doi.org/10.1186/s12939-021-01493-4

Shaw, J., Gray, C. S., Baker, G. R., Denis, J.-L., Breton, M., Gutberg, J., Embuldeniya, G., Carswell, P., Dunham, A., McKillop, A., Kenealy, T., Sheridan, N., & Wodchis, W. (2018). Mechanisms, contexts and points of contention: Operationalizing realist-informed research for complex health interventions. *BMC Medical Research Methodology*, *18*(178). https://doi.org/10.1186/s12874-018-0641-4

Sherman, L. W., William, S., Ariel, B., Strang, L.R., Wain, N., Slothower, M., & Norton, A. (2014). An integrated theory of hot spots patrol strategy: Implementing prevention by scaling up and feeding back. *Journal of Contemporary Criminal Justice*, *30*, 95–122. https://doi.org/10.1177/1043986214525082

Singer, M. K., Dressler, W., George, S., Baquet, C. R., Bell, R. A., Burhansstipanov, L., Burke, N. J., Dibble, S., Elwood, W., & Garro, L. (2016). Culture: The missing link in health research. *Social Science & Medicine*, *170*, 237–246. https://doi.org/10.1016/j.socscimed.2016.07.015

Skelly, A. C., Dettori, J. R., & Brodt, E. D. (2012). Assessing bias: The importance of considering confounding. *Evidence-Based Spine-Care Journal*, *3*(01), 9–12. https://doi.org/10.1055/s-0031-1298595

Sloan-Howitt, M. and Kelling, G.L. (1990). Subway graffiti in New York City: "Getting Up" vs. "Meanin It and Cleanin It". *Security Journal*, *1*, 131–136.

Smallbone, S. W., Rayment-McHugh, S., & Smith, D. (2013). *Preventing youth sexual violence and abuse in West Cairns and aurukun: Establishing the scope, dimensions and dynamics of the problem*. Griffith University.

Smith, C. (2010). *What is a person?* University of Chicago.

Smith, C., & Elger, T. (2014). Critical realism and interviewing subjects. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using critical realism* (pp. 109–131). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199665525.003.0006

Sobh, R., & Perry, C. (2006). Research design and data analysis in realism research. *European Journal of Marketing*, *40*(11–12), 1194–1209. https://doi.org/10.1108/03090560610702777

Sturges, J. E., & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Research*, *4*(1), 107–118. https://doi.org/10.1177/1468794104041110

Sutton-Brown, C. A. (2014). Photovoice: A methodological guide. *Photography Culture*, *7*(2), 169–185. https://doi.org/10.2752/175145214X13999922103165

Tabulawa, R. (2013). *Teaching and learning in context: Why pedagogical reforms fail in Sub-Saharan Africa*. African Books Collective.

Taylor, S. (1982). *Durkheim and the study of suicide*. Red Globe Press.

Teti, M., & van Wyk, B. (2020). Qualitative methods without borders: Adapting photovoice: From a. U.S to South African setting. *International Journal of Qualitative Methods*, *19*, https://doi.org/10.1177/1609406920927253

Tilley, N. (2009). *Crime prevention*. Willan Publishing.

Tilley, N., Rayment-McHugh, S., Smallbone, S. W., Wardell, M., Smith, D., Allard, T., … Homel, R. (2014). On being realistic about reducing the prevalence and impacts of youth sexual violence and abuse in two Australian Indigenous communities. *Learning Communities International Journal of Learning in Social Contexts: Special Issue: Evaluation*, *14*, 6–26. https://www.cdu.edu.au/sites/default/files/the-northern-institute/10.18793-lcj12014.18714.18702.pdf.

Tilley, N., & Tseloni, A. (2016). Choosing and using statistical sources in criminology: What can the crime survey for England and Wales tell us? *Legal Information Management*, *16*(2), 78–90. https://doi.org/10.1017/S1472669616000219

Tolson, D., McIntosh, J., Loftus, L., & Cormie, P. (2007). Developing A managed clinical network in palliative care: A realistic evaluation. *International Journal of Nursing Studies*, *44*(2), 183–195. https://doi.org/10.1016/j.ijnurstu.2005.11.027

Trochim, W. M. K. (1989). Outcome pattern matching and program theory', *Evaluation & Program Planning*, *12*(4), 355–366. https://doi.org/10.1016/0149-7189(89)90052-9.

Tversky, A., & Kahneman, D. (1988). Rational choice and the framing of decisions. *Decision making: Descriptive, normative, and prescriptive interactions*, 167–192.

Udai, P., & Rao, T. V. (1975). Cross cultural surveys and interviewing (No. WP1975-05-01_00150). *Indian Institute of Management* Ahmedabad, Research and Publication Department.

University of California. (2023). *Exonerations by year: DNA and Non-DNA* https://www.law.umich.edu/special/exoneration/Pages/Exoneration-by-Year.aspx

Uwamahoro, N. S., Forsyth, J., Andre, F., Mandlate, D. A., Gilmore, B., & Muhajarine, N. (2024). Realist evaluation of maternity waiting home intervention models in Inhambane, Mozambique: Protocol for a comparative embedded case study, the Mozambique-Canada maternal health project. *BMJ Open*, *14*(3), e075681. https://doi.org/10.1136/bmjopen-2023-075681

Uwamahoro, N. S., McRae, D., Zibrowski, E., Victor-Uadiale, I., Gilmore, B., Bergen, N., & Muhajarine, N. (2022). Understanding maternity waiting home uptake and scale-up within low-income and middle-income countries: A programme theory from A realist review and synthesis. *BMJ Global Health*, *7*(9), e009605. https://doi.org/10.1136/bmjgh-2022-009605

Van Belle, S., Abejirinde, I.-O., Ssennyonjo, A., Srinivas, P. N., Hebbar, P., & Marchal, B. (2023). How to develop a realist programme theory using Margaret Archer's structure–agency–culture framework: The case of adolescent accountability for sexual and reproductive health in urban resource-constrained settings. *Evaluation*, *29*(3), 259–275. https://doi.org/10.1177/13563890231185167

Van Belle, S., Van De Pas, R. & Marchal, B. (2017). Towards an agenda for implementation science in global health: There is nothing more practical than good (social science) theories. *BMJ Global Health*, 2, e000181. https://doi.org/10.1136/bmjgh-2016-000181

Van Belle, S., Wong, G., Westhorp, G., Pearson, M., Emmel, N., Manzano, A., Marchal, B. (2016). Can "realist" randomised controlled trials be genuinely realist? *Trials*, *17*: 313. https://doi.org/10.1186/s13063-016-1407-0

Vareilles, G., Marchal, B., Kane, S., Petrič, T., Pictet, G., & Pommier, J. (2015). Understanding the motivation and performance of community health volunteers involved in the delivery of health programmes in Kampala, Uganda: A realist evaluation. *BMJ Open*, *5*(11), e008614. https://doi.org/10.1136/bmjopen-2015-008614

Vaughn, L. M., & Jacquez, F. (2020). Participatory research methods – Choice points in the research process. *Journal of Participatory Research Methods*. https://doi.org/10.35844/001c.13244

Vésteinsdóttir, V., Joinson, A., Reips, U. D., Danielsdottir, H. B., Thorarinsdottir, E. A., & Thorsdottir, F. (2019). Questions on honest responding. *Behavior Research Methods*, *51*, 811–825. https://doi.org/10.3758/s13428-018-1121-9

Vincent, R., Adhikari, B., Duddy, C., Richardson, E., Wong, G., Lavery, J., Molyneux, S. & Team, T. R. (2022). Working relationships across difference - a realist review of community engagement with malaria research. *Wellcome Open Research*, *7*. https://doi.org/10.12688/wellcomeopenres.17192.1

Vineis, P. (2002). History of bias. *Sozial-und Präventivmedizin 47*: 156–161.

Vogel, I. & Punton, M. (2017). *Building capacity to use research evidence (BCURE) realist evaluation: Stage 2 synthesis report*. ITAD. Hove, United Kingdom. https://www.itad.com/knowledge-product/building-capacity-to-use-research-evaluation-bcure-realist-evaluation-stage-2-synthesis-report/

Vogel, I. & Punton, M. (2018). *Annexes for the final evaluation of the building capacity to use research evidence (BCURE) programme*. ITAD. Hove, United Kingdom. https://www.itad.com/knowledge-product/annexes-for-the-final-evaluation-of-the-building-capacity-to-use-research-evidence-bcure-programme/

Vogl, S. (2013). Telephone versus face-to-face interviews: Mode effect on semistructured interviews with children. *Sociological Methodology*, *43*(1), 133–177. https://doi.org/10.1177/0081175012465967

Von Thiele Schwarz, U., Nielsen, K. M., Stenfors-Hayes, T., & Hasson, H. (2017). Using kaizen to improve employee well-being: Results from two organizational intervention studies. *Human Relations*, *70*(8), 966–993. https://doi.org/10.1177/0018726716677071

Vrij, A., Hope, L., & Fisher, R. P. (2014). Eliciting reliable information in investigative interviews. *Policy Insights from the Behavioral & Brain Sciences*, *1*(1), 129–136. https://doi.org/10.1177/2372732214548592

Vulliamy, G. (1990). Research outcomes: postscript. Doing educational research in developing countries: *Qualitative Strategies*, 169–233.

Waldron, T., Carr, T., McMullen, L., Westhorp, G., Duncan, V., Neufeld, S.-M., Bandura, L.-A., & Groot, G. (2020). Development of a program theory for shared decision-making: A realist synthesis. *BMC Health Services Research*, *20*(1), 59. https://doi.org/10.1186/s12913-019-4649-1

Walshe, C., Ewing, G., & Griffith, J. (2012). Using observation as a data collection method to help understand patient and professional roles and actions in palliative care settings. *Palliative Medicine*, *26*(8), 1048–1054. https://doi.org/10.1177/0269216311432897

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, *24*(3), 369–387. https://doi.org/10.1177/109019819702400309

Ward, G., & Haigh, M. (2017). Challenges and changes: Developing teachers' and initial teacher education students' understandings of the nature of science. *Research in Science Education*, *47*(6), 1233–1254. https://doi.org/10.1007/s11165-016-9543-9

Warner, S. L. (1965). Randomized response: A survey technique for eliminating evasive answer bias. *Journal of the American Statistical Association*, *60*, 63–69

Warren, E. A., Melendez-Torres, G. J. & Bonell, C. (2022). Are realist randomised controlled trials possible? A reflection on the INCLUSIVE evaluation of a whole-school, bullying-prevention intervention. *Trials*, *23*, 82. https://doi.org/10.1186/s13063-021-05976-1

Webb, E., Campbell, D., Schwartz, R., & Sechrest, L. (2000) *Unobtrusive measures*. SAGE.

Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures: Nonreactive research in the social sciences*. Rand Mcnally.

Weiss, C. H. (1995). Nothing as practical as a good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families, In J. P. Connell, A. C. Kubisch, L. B. Schorr, & C. H. Weiss (Eds.), *New approaches to evaluating community initiatives: Concepts, methods, and contexts* (pp. 65–92). Aspen Institute.

Weiss, C. H. (1997). Theory-based evaluation: Past, present, and future. *New Directions for Evaluation*, *76*: 41–55.

Westhorp, G. (2013). Developing complexity-consistent theory in a realist investigation, *Evaluation*, *19*(4), 364–382. https://doi.org/10.1177/1356389013505042

Westhorp, G. (2014). *Realistic impact evaluation. An introduction*. A Methods Lab Publication, ODI. in Development, Australian Government Department of Foreign Affairs and Trade. https://odi.org/en/publications/realist-impact-evaluation-an-introduction/

Westhorp, G. (2018). Understanding mechanisms in realist evaluation and research, In N. Emmel, J. Greenhalgh, A. Manzano, M. Monaghan, & S. Dalkin (Eds.), *Doing realist research* (pp. 41–58). SAGE.

Westhorp, G. & Manzano, A. (2017). Realist evaluation interviewing – a 'starter set' of questions. *The RAMESES II Project*. RAMESES_II_Realist_interviewing_starter_questions.pdf (ramesesproject.org)

Westhorp, G., Stevens, K., & Rogers, P. J. (2016). Using realist action research for service redesign. *Evaluation*, *22*(3), 361–379. https://doi.org/10.1177/1356389016656514

Williams, E. (2021, February 16-18). *Can a machine think like Ray Pawson?: Potential and perils of machine assisted realist analysis* [Conference session]. The International Conference for Realist Research, Evaluation and Synthesis (REALIST 2021). Online.

Williams V., Boylan A.-M., Nunan D. (2020). Critical appraisal of qualitative research: Necessity, partialities and the issue of bias. *BMJ Evidence-Based Medicine*; *25*:9–11. https://doi.org/10.1136/bmjebm-2018-111132

Williams, E., Meggetto, E. & Westhorp, G. (2023). Accountability to Communities and Children in Consortia: Final Report. Charles Darwin University/Save the Children Netherlands. https://resourcecentre.savethechildren.net/pdf/Accountability-to-Children-and-Communities-in-Consortia-Research-Report.pdf/

Wilson, M., & Greenhill, A. (2004). Theory and action for emancipation: Elements of a critical realist approach. In Kaplan B., Truex D.P., Wastell D., Wood-Harper A.T., & DeGross J.I. (Eds.), *Information systems research* (1st Ed, pp. 667–674). Springer.

Wilson, J. Q., & Kelling, G. L. (1982). Broken windows. *The Atlantic Monthly*, *249*, 29–38.

Winfred, A., Hagen, E, & George, F. (2021). The lazy or dishonest respondent. *Annual Review of Organizational Psychology & Organizational Behavior*, *8*:1,105–137. https://doi.org/10.1146/annurev-orgpsych-012420-055324

Wong, G., Greenhalgh, T., Westhorp, G. & Pawson, R., (2012). Realist methods in medical education research: What are they and what can they contribute?. *Medical Education*, *46*(1), 89–96. https://doi.org/10.1111/j.1365-2923.2011.04045.x

Wong, G., Greenhalgh, T., Westhorp, G., & Pawson, R. (2014). Development of methodological guidance, publication standards and training materials for realist and meta-narrative reviews: The RAMESES (realist and meta-narrative evidence syntheses: Evolving standards) project. *Health Services & Delivery Research*, *2*(30). https://doi.org/10.3310/hsdr02300

Wong, G., Westhorp. G., Greenhalgh, J., Manzano, A., Jagosh, J., & Greenhalgh, T. (2017). Quality and reporting standards, resources, training materials and information for realist evaluation: The RAMESES II project. *Health Services & Delivery Research*, *5*(28). https://doi.org/10.3310/hsdr05280

Wong, G., Westhorp, G., Manzano, A., Greenhalgh, J., Jagosh, J., & Greenhalgh, T. (2016). RAMESES II reporting standards for realist evaluations. *BMC Medicine*, *14*(1), 96. https://doi.org/10.1186/s12916-016-0643-1

Woodgate, R. L., Zurba, M., & Tennent, P. (2017). Worth a thousand words? Advantages, challenges and opportunities in working with photovoice as a qualitative research method with youth and their families. *Forum Qualitative Sozialforschung*, *18*(1). https://doi.org/10.17169/fqs-18.1.2659

Work better together with Mural's visual work platform | Mural. (n.d.). https://www.mural.co/

World Health Organization. (1996). *Maternity waiting homes: A review of experiences*. https://apps.who.int/iris/bitstream/handle/10665/63432/WHO_RHT_MSM_96.21.pdf?sequence=1

Wynn, D., & Williams, C. K. (2012). Principles for conducting critical realist case study research in information systems. *MIS Quarterly: Management Information Systems*, *36*(3), 787–810. https://doi.org/10.2307/41703481

Zibrowski, E., Carr, T., McDonald, S., Thiessen, H., van Dusen, R., Goodridge, D., Haver, C., Marciniuk, D., Stobart, C., Verrall, T., & Groot, G. (2021). A rapid realist review of patient engagement in patient-oriented research and health care system impacts: Part one. *Research Involvement & Engagement*, *7*(1), 72. https://doi.org/10.1186/s40900-021-00299-6

Zurba, M. & Petriello, M. A., Madge, C., Mccarney, P., Bishop, B., Mcbeth, S., Denniston, M., Bodwitch, H., Bailey, M. (2021). Learning from knowledge co-production research and practice in the 21st century. *Sustainability Science, July 7., 17*, 449–467. https://doi.org/10.1007/s11625-021-00996-x