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Organisational Interventions to Improve Employees' Health and Wellbeing: A Realist Synthesis

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Abstract: Although organisational interventions have shown promising results in improving employees' health and wellbeing, reviews of the effectiveness of such interventions conclude results are inconsistent. Realist synthesis is considered an appropriate method of literature review to improve the consistency of empirical evidence by developing generalisable statements of 'what works for whom in which circumstances'. In this article, to identify and synthesise existing evidence from the empirical studies of organisational interventions, we conducted a realist synthesis according to the RAMESES publication standards. We reviewed 28 articles. Six realist programme theories were developed that explain how different mechanisms of organisational interventions may bring about different outcomes in different contexts. These realist programme theories are based on the process mechanisms of implementation adherence, communication, employees' participation, senior management support, middle management support, and external consultants/researchers support. This realist synthesis enhances the understanding of how organisational interventions may improve employees' health and wellbeing, in which contexts, and for which group of employees. As such, it makes an important potential contribution to designing, implementing, and evaluating future organisational interventions.

Keywords: Realist synthesis, organisational intervention, Context-Mechanism-Outcome configurations, realist programme theories, mechanisms

INTRODUCTION

Organisational interventions are "planned, behavioural, and theory-based actions that aim to improve employees' health and wellbeing by changing the way work is designed, organised, and managed" (Nielsen, 2013, p. 1030). Organisational interventions are the key recommended approach for improving psychosocial working conditions and employees' health and wellbeing (EU-OSHA, 2016; ILO, 2001; UK Health and Safety Executive, 2007). The literature, however, shows that empirical evidence demonstrating the effectiveness of organisational interventions is inconsistent (Montano, Hoven, & Siegrist, 2014; Semmer, 2006). To inform future organisational interventions, it has therefore been recommended to synthesise the inconsistent empirical evidence of organisational interventions to understand what works for whom, why, how, and under which circumstances (Nielsen & Miraglia, 2017).

The lack of consistency in the evidence of organisational interventions may be due to the heterogeneity in their designs, implementation strategies, contexts, and outcomes. First, regarding design, organisational interventions have used different risk assessment methods to identify the working condition problems within the organisations, various approaches to develop action plans, and numerous methods to monitor the actual implementation of intervention activities (Nielsen & Noblet, 2018; Nielsen, Randall, Holten, & Rial-González, 2010). Second, regarding implementation strategy, organisational interventions have used various drivers of change including employees, senior managers, middle managers, and consultants/researchers whose mental models of working conditions and interventions have been different (Nielsen & Noblet, 2018; Nielsen & Abildgaard, 2013). Third, regarding context, since organisational interventions operate within changing complex social systems, wide-ranging multi-level contextual factors have facilitated or impaired intervention activities resulting in different outcomes in different contexts (Nielsen & Randall, 2013). Finally,

regarding outcome, different organisational interventions have measured different intervention outcomes (e.g., work engagement, job satisfaction, stress, burnout), some organisational interventions have resulted in improvements in working conditions and employees' health and wellbeing, others have resulted in no effect, and a few even resulted in a deterioration in working conditions and employees' health and wellbeing (Montano et al., 2014; Semmer, 2006). These issues illustrate the inconsistency in evidence relating to the effectiveness of organisational interventions.

To address these issues, it has been recommended that organisational intervention studies should explore and report whether the intervention works, what makes it work, for whom, and in which circumstances (Nielsen & Miraglia, 2017). In line with this suggestion, this review aims to answer the question of 'what works for whom in which circumstances?' regarding organisational interventions. To answer this question, we synthesise empirical evidence from the organisational interventions based on realist synthesis.

Realist synthesis is a theory-driven, evidence-based, qualitative method of literature review (Pawson, Greenhalgh, Harvey, & Walshe, 2005). Realist synthesis seeks to answer the question of 'what works for whom in which circumstances?' by identifying the underlying Mechanisms associated with the implemented organisational interventions in the literature (i.e., what made the interventions work), the Contexts under which the mechanisms operated (i.e., the conditions in which the interventions were effective), and the patterns of Outcomes produced (i.e., the observed improvements in working conditions and employees' health and wellbeing) (Nielsen & Miraglia, 2017). These form Context-Mechanism-Outcome (CMO) configurations (where Context + Mechanisms = Outcomes) (Nielsen & Miraglia, 2017; Pawson et al., 2005). Based on these CMO configurations, this method synthesises empirical evidence into realist programme theories. Realist programme theories are theories based on CMO configurations that hypothesise how and why interventions work, taking into

consideration the causal links between the mechanisms triggered by the interventions, the contexts in which the interventions are implemented, and the outcomes produced (Pawson et al., 2005). As a result, realist synthesis is suitable for dealing with the heterogeneity of results in the organisational interventions literature as it allows reflection on the contexts, mechanisms, and outcomes that underlie this variation (Pawson et al., 2005).

The present realist synthesis aims to identify and synthesise empirical evidence from the organisational interventions literature into CMO configurations and realist programme theories. To achieve this aim, the objectives of this realist synthesis are to: identify empirical studies of organisational interventions; explore the research aims and methodologies of these studies; extract themes of contexts, mechanisms, and outcomes; develop CMO configurations; and, develop realist programme theories. Given the aim and objectives, the overall research question of this realist synthesis is '*Which realist programme theories can be developed based on the empirical evidence from the organisational interventions literature?*'.

To the best of our knowledge, this is the first realist synthesis to translate empirical evidence from the organisational interventions literature into realist programme theories. These theories will be highly beneficial for practitioners and policy-makers for designing, implementing, and evaluating future organisational interventions as they facilitate the understanding of what works for which group of employees, why, how, and under which circumstances. In addition, these generalisable theories that are based on such understanding, ultimately improve the consistency of evidence demonstrating the effectiveness of organisational interventions.

METHODS

Realist synthesis entails the six steps of: defining a research question; formulating an initial realist programme theory; searching for primary studies; selecting the studies and appraising

their quality; extracting, analysing, and synthesising relevant data; and, refining the realist programme theories (Nielsen & Miraglia, 2017; Pawson, 2006). The results are reported according to the Realist And Meta-narrative Evidence Syntheses: Evolving Standards (RAMESES) publication standards (Wong, Greenhalgh, Westhorp, Buckingham, & Pawson, 2013). The RAMESES publication standards consist of a set of 19 publication standards covering abstract, introduction, methods, results, and discussion of realist syntheses with the aim of improving transparency, consistency, and rigour of reporting of realist syntheses (Wong et al., 2013).

Formulating the Initial Realist Programme Theory

As mentioned above, the research question of this realist synthesis is '*Which realist programme theories can be developed based on the empirical evidence from the organisational interventions literature?'*. To answer this research question, the first author formulated an initial realist programme theory. This process included a scoping literature search in parallel to discussing findings and insights with the co-authors to iteratively formulate the initial realist programme theory. The first author started with searching for literature reviews on interventions aiming to improve employees' health and wellbeing (Corbière, Shen, Rouleau, & Dewa, 2009; Czabala & Charzynska, 2014; Havermans et al., 2016; Ivandic, Freeman, Birner, Nowak, & Sabariego, 2017; Williams et al., 2018). These reviews were read to explore the implementation elements of interventions and how these elements may improve employees' health and wellbeing. These reviews were also used to extract search terms. Discussion among the authors led to the decision that the search should not be limited to any specific mechanism. Hence, the initial realist programme theory, at a high level, hypothesised that 'organisational interventions improve employees' health and wellbeing through various mechanisms which produce different patterns of outcomes in different contexts'.

Searching for Primary Studies

We conducted a systematic literature search to identify mechanisms and their causally related outcomes and contextual factors with primary evidence regarding organisational interventions. We used systematic searches in order to structure and limit the search process. The first author conducted the search in PsycARTICLES, PsycINFO, Social Policy and Practice, Medline via OvidSP, Scopus, CINAHL via EBSCO, Web of Science/Social Science Citation Index (SSCI), Cochrane Library, and ProQuest in June, 2019. The search was limited to articles published in English language journals and between January, 2009 and June, 2019. Three generic terms of "Intervention Setting", "Intervention", and "Outcomes" were used to search in the databases. The search term "Intervention Setting" contained 13 relevant phrases (e.g., occupation, organisation, workplace), "Intervention" contained nine relevant phrases (e.g., intervention, programme, promotion), and "Outcomes" contained 21 relevant phrases (e.g., occupational health, wellbeing, stress). Search terms included both MeSH terms and free text words (truncated as required) in combination with Boolean operators "AND" and "OR". Appendix A shows the details of the search strategies in the databases. Figure 1 shows the search process in a flow diagram.

[INSERT FIGURE 1 ABOUT HERE]

Selecting Studies and Appraising Their Quality

The search identified 16537 potentially relevant articles. The first author screened duplicates and removed 229 duplicated studies. Then, by following the RAMESES publication standards, first, we applied the inclusion and exclusion criteria to select possibly relevant articles and, second, we assessed the relevance and rigour of the remained articles.

In the first stage, we considered four inclusion criteria. First, type of data: we limited our search strategy to academic literature in peer-reviewed, English language journals; we

included both qualitative and quantitative intervention studies and we accepted any type of data collection method including interviews, questionnaires, focus groups, and observations. Second, study design: we accepted any study design including Cluster Randomised Control Trials (RCTs) and quasi-experiments (see the results section for descriptions of these study designs). Third, study focus: each article had to focus on organisational interventions as per the above definition; (a) if the study provided a rich and detailed description of contexts, mechanisms, and outcomes (CMOs), it was classified as 'thick' and was prioritised for the synthesis, (b) if the study provided a limited description of CMOs, it was included as a 'thin' paper, we mainly extracted implicit CMOs (where the studies' authors did not label CMOs) from 'thin' papers. Fourth, outcome measures: the observed outcomes should be related to psychosocial risk management, psychosocial working conditions, employees' health and wellbeing, and organisational outcomes. In addition, we considered two further exclusion criteria, non-English language papers and intervention studies pre-2009 were excluded during the search in the databases. The assessment of articles against inclusion and exclusion criteria was conducted during the search in the databases, title screening, abstract screening, and full-text screening by the first author. The second author then independently conducted full-text screening of the initially included articles to ensure that both inclusion and exclusion criteria were met. Next, the first and second authors discussed their disagreements on ten included articles in two meetings with the third author. After re-assessing the disputed articles by the first, second, and third authors, it was agreed to exclude seven articles and include 35 articles. As a post-hoc check, the second author independently conducted title and abstract screening of random 10% (n=1654) sample of the initially identified articles from the initial searches in the databases. The second author agreed with the articles included and excluded by the first author, except for an additional two articles she was unsure of for which she checked the full

text. After discussing it with the first author, it was agreed these two articles should be excluded from the review.

In the second stage, we assessed the relevance and rigour of the 35 articles. First, the relevance was assessed by examining whether an article included information about CMOs which enabled us to extract CMO configurations in order to refine the initial realist programme theory (Wong et al., 2013). Second, the rigour was assessed by examining whether the methods of data collection and data analysis were credible and trustworthy (Wong et al., 2013). The assessment of articles against the relevance and rigour was done by the first and third authors who conducted full-text screening of the 35 articles independently. Then, the first and third authors discussed the quality of the included articles in two meetings with the second author. After re-assessing nine disputed articles by the first, second, and third authors, it was agreed to exclude seven articles and include 28 articles.

Extracting, Analysing, and Synthesising Relevant Data

Based on the synthesis objectives, the first author extracted data about where the intervention study was implemented, when the study was published, the study aim, the study design, and the evaluation methods. Appendix B shows these details of the reviewed studies.

To answer the research question, that is, '*Which realist programme theories can be developed based on the empirical evidence from the organisational interventions literature?*', data were extracted, analysed, and synthesised as follows. To extract data, the first author extracted data to identify how mechanisms produced outcomes being triggered in specific contexts. To achieve this, mechanisms were categorised into process, content, and perception mechanisms. Process mechanisms are the processes of designing and implementing the interventions, content mechanisms are the nature of changes focused on in the interventions including the content of action plans, and perception mechanisms are the intervention

participants' perceptions of the process and content mechanisms (Nielsen & Miraglia, 2017; Pawson & Tilley, 1997). These mechanisms were either explicitly proposed by the studies' authors or implicitly addressed in the studies. In addition, as suggested by Nielsen and Randall (2013), contexts were categorised into omnibus and discrete contexts. Omnibus contexts refer to the general intervention setting including the 'maturity' of the organisation in terms of organisational culture, pre-intervention working conditions, pre-intervention employees' health and wellbeing, and pre-intervention organisational and individual resources. Discrete contexts refer to the concurrent changes taking place during the intervention such as organisational restructuring, downsizing, and budget cuts, considered as possible reasons for unexpected outcomes due to their effects on the operation of specific mechanisms.

To analyse data, we focused on identifying process mechanisms and their causally relevant contextual factors and outcomes. Process mechanisms were analysed based on different stakeholders' roles in designing, implementing, and evaluating organisational interventions. This means we analysed different roles of employees, senior management, middle management, and external consultants/researchers in designing, implementing, and evaluating organisational interventions. This was done because realist approaches (including realist synthesis) consider the role and knowledge of interventions stakeholders to be paramount in understanding why interventions succeeded or failed to achieve their intended outcomes (Pawson & Tilley, 2004).

To synthesise data, we explained how each process mechanism operated, what pre-conditions (i.e., contextual factors) were necessary for the operation of each mechanism, and what outcomes were produced. More specifically, we categorised outcomes into proximal outcomes (i.e., changes in psychosocial risk management such as changes in employees' and/or managers' knowledge, reasonings, attitudes, and behaviours in relation to

psychosocial working conditions and in their capacity to manage psychosocial working conditions), intermediate outcomes (i.e., changes in psychosocial working conditions such as changes in job autonomy), and distal outcomes (i.e., changes in employees' health and wellbeing such as job satisfaction and organisational outcomes such as performance) (Fridrich, Jenny, & Bauer, 2015). In our realist synthesis, health and wellbeing comprised of mental/psychological indicators such as affect, frustration, and anxiety and physical/physiological indicators such as blood pressure, body mass index, and general physical health (Danna & Griffin, 1999). During the synthesis process, we tried to relate a specific mechanism to a specific outcome in each intervention study, however, the majority of intervention studies did not report a tested path (i.e., causal link) between a specific mechanism to a specific outcome. In this case, we highlighted that a group of mechanisms, in interaction with each other, produced the outcomes (Lacouture, Breton, Guichard, & Ridde, 2015; Pawson & Tilley, 2004). Based on such elements, we developed CMO configurations and realist programme theories.

Data extraction, analysis, and synthesis processes were conducted manually and were iterative. To ensure an objective and transparent data extraction, analysis, and synthesis, a data matrix (a Microsoft Excel spreadsheet) was developed and saved in a shared Google Drive accessible to all authors. Regarding data extraction, establishing the search strategy was iterative as the first author extracted search terms and relevant databases from other relevant literature reviews and discussed them with the second and third authors. They provided feedback on whether or not the search strategy was appropriate for refining the initial realist programme theory. After three iterations, the first, second, and third authors agreed on the final search strategy. During the search, the first, second, and third authors in an iterative process narrowed down the number of articles based on the inclusion and exclusion criteria and quality appraisal. Regarding data analysis, first, the first author

extracted data from the included studies and analysed them based on themes of contexts, mechanisms, and outcomes and their relevant sub-themes (e.g., sub-themes of omnibus and discrete for the theme of contexts). Then, the second and third authors, independently, analysed all included studies against the suggested themes and sub-themes. The iterative discussions among the first, second, and third authors led to the finalised contexts, mechanisms, and outcomes in each intervention study. Regarding data synthesis, the first author synthesised the analysed data into seven realist programme theories. After several meetings, these realist programme theories were refined and finalised by all authors, resulting in six realist programme theories. These ongoing, iterative processes of data extraction, analysis, and synthesis were conducted by the involvement of all authors to ensure the coherence, plausibility, and appropriateness of the processes as required by the RAMESES publication standards (Wong et al., 2013).

RESULTS

Document Characteristics

The search strategies resulted in 28 rigorous and relevant studies covering various organisational interventions in different organisations. There were four intervention studies published in more than one article: the intervention in two Danish postal regions reported in articles 1 and 27 (study 1); the intervention in a regional hospital in Sweden reported in articles 24 and 27 (study 2); the intervention in two schools in the Netherlands reported in articles 20 and 21; and, the teamwork intervention in two elderly care centres in Denmark reported in articles 15 and 16. Table 1 shows the authors and publication year of the included studies.

[INSERT TABLE 1 ABOUT HERE]

Nine studies used a Cluster RCT design [1, 2, 7, 8, 9, 19, 24, 25, 26]. In Cluster RCTs, groups of participants, either worksites, organisational departments, or working teams, are recruited and randomly assigned to intervention groups or control groups, which allows for the comparison of outcomes from these two groups to draw conclusions of the effectiveness of the intervention. Ten studies used a quasi-experimental design [3, 5, 6, 11, 14, 17, 20, 21, 22, 28]. In a quasi-experimental design, participants are not randomly assigned to intervention groups or control groups. Six studies used a longitudinal design [10, 13, 15, 16, 18, 23]. Three studies used explicit evaluation frameworks; one study combined realist evaluation with a quasi-experimental design and process evaluation [4], one study used realist evaluation in two cluster randomised controlled interventions [27], and one study utilised the RE-AIM evaluation framework and applied an adapted research design by retrospectively assigning study participants to comparison groups [12]. The RE-AIM framework through its five dimensions of Reach, Effectiveness, Adoption, Implementation, Maintenance provides a practical means of evaluating interventions (Glasgow, Vogt, & Boles, 1999).

In terms of study methods, 15 studies used quantitative methods [6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 21, 27, 28] and 13 studies used mixed methods (i.e., both quantitative and qualitative methods) [1, 2, 3, 4, 5, 12, 18, 20, 22, 23, 24, 25, 26].

Main Findings (Synthesised Realist Programme Theories)

We extracted contextual factors, mechanisms, and outcomes from each intervention study in the 28 articles. Appendix C shows these contextual factors, mechanisms, and outcomes in each intervention study. Then, we analysed and synthesised data focusing on the process mechanisms of implementation adherence, communication, employees' participation, senior management support, middle management support, and external consultants/researchers support. In the following, we identified process mechanisms, contextual factors associated

with such mechanisms and their outcomes, and synthesised our findings into six realist programme theories by using the statements of: '***If*** there are specific contextual factors, ***then*** specific mechanisms produce specific proximal, intermediate, and distal outcomes'.

Implementation adherence. The implementation adherence was a mechanism to ensure the success of organisational interventions. In the reviewed organisational interventions studies, the implementation adherence was reported in terms of intervention fidelity (i.e., the extent to which the intervention was delivered consistent with its protocol) [2, 20], dose delivered to intervention participants (i.e., the extent to which the number or amount of planned activities was delivered), and dose received by intervention participants (i.e., the extent to which intervention participants received and participated in the intervention activities) [9, 19, 20, 21, 23].

Five studies revealed four pre-conditions (i.e., contextual factors) for operating the implementation adherence and achieving desired outcomes [2, 9, 19, 20, 23]. First, the rationale behind the implementation process should be clear and have a strong theoretical basis [19]. Second, there should be sufficient resources in the organisation in terms of time, skills, budget, and infrastructure that facilitate the implementation process [2, 9]. Third, there should be a supportive culture and a lack of adverse internal events (e.g., changes in the management team during the intervention) that facilitate the implementation process [20]. Fourth, there should be senior management and middle management support of the implementation process [23].

Two studies reported that the implementation adherence, in interaction with other process mechanisms, resulted in positive outcomes [21, 23]. As a proximal outcome, the implementation adherence improved psychosocial risk management by increasing employees' occupational self-efficacy [21]. In terms of intermediate outcomes, this

mechanism improved psychosocial working conditions by improving relational job characteristics [23]. As for distal outcomes, this mechanism improved employees' health and wellbeing by reducing employees' burnout [23]. The above evidence can be synthesised into the following realist programme theory.

Realist programme theory 1: ***If*** the rationale behind the implementation process is clear and has a strong theoretical basis, there are sufficient resources in the organisation, there is a supportive culture and a lack of adverse internal events, and both senior and middle management support the implementation process (*contextual factors*); ***then*** the implementation adherence with high levels of fidelity and dose delivered and received (*mechanisms*) improves psychosocial risk management by increasing employees' occupational self-efficacy *(a proximal outcome)*; improves psychosocial working conditions by improving relational job characteristics (*an intermediate outcome*); and, ultimately, improves employees' health and wellbeing by reducing their burnout (*a distal outcome*).

Communication. Communication was an important mechanism of change identified in our included studies. Two different aspects of communication were identified. First, regarding the process (i.e., 'how to'), communication was between the steering group and employees [8] and among organisational sub-units (e.g., teams) [2]. Second, regarding the content (i.e., 'what to'), communication was about the aims, objectives, and progress of the intervention [2, 5, 8, 20].

Two studies revealed two pre-conditions for triggering communication and achieving desired outcomes [5, 20]. First, there should be a climate of trust, openness, and support in the organisation encouraging intervention stakeholders to communicate with each other about the intervention and not be afraid of retaliation for their communications (particularly for employees) [5]. Second, there should be sufficient resources in terms of time, energy,

confidence, and infrastructure in the organisation to establish effective communication about the intervention [20].

Two studies reported that communication, in interaction with other process mechanisms, produced positive outcomes [5, 8]. As for distal outcomes, communication improved employees' health and wellbeing by increasing employees' health and safety and protecting them from increased stress and worsened job satisfaction [5]. In addition, communication improved organisational outcomes by decreasing the incidence of short-term sickness absence and the risk of long-term sickness absence [8], increasing sales [5], and protecting employees from worsened organisational commitment and turnover [5]. This evidence leads to the following realist programme theory.

Realist programme theory 2: ***If*** there is a climate of trust, openness, and support in the organisation and there are sufficient resources in the organisation (*contextual factors*); ***then*** effective communication across the organisation about the intervention (a *mechanism*) improves employees' health and wellbeing by increasing their health and safety and protecting them from increased stress and worsened job satisfaction (*distal outcomes*); and, improves organisational outcomes by reducing organisational sickness absence incidences, increasing sales, and protecting employees from worsened organisational commitment and turnover (*distal outcomes).*

Employees' Participation. Employees' participation was the central mechanism of many organisational interventions. In the reviewed organisational intervention studies, employees' participation had two aspects. First, regarding the process (i.e., 'how to'), employees engaged in organisational interventions by following structured intervention process (e.g., attending regular meetings, workshops, focus groups, training sessions, brainstorm sessions) [1, 2, 3, 6, 7, 9, 10, 12, 15, 17, 18, 19, 22, 23, 26, 28] and using Kaizen

related tools to manage the problem-solving approach [24, 27]. Second, regarding the content (i.e., 'what to'), employees engaged in: identifying the working condition problems they perceived to be most important to address in the workplace [3, 7, 11, 20, 22, 24, 25]; making decisions about what changes in working conditions can be made and how these changes can be implemented [1, 2, 3, 4, 5, 6, 8, 9, 11, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28]; and, tailoring the whole or a part of the intervention to fit with the organisational contexts and individuals within the organisation [1, 5, 8, 10, 22, 28].

Nine studies revealed that there were eight pre-conditions for triggering employees' participation and producing desired outcomes [1, 2, 4, 5, 12, 15, 20, 24, 27]. First, there should be a climate of trust, openness, and support in the organisation that facilitates participation in the intervention [20]. Second, there should be a reasonable existing job design that provides employees with the prerequisite resources to engage in the intervention [15]. Third, there should be a good level of employees' health and wellbeing that provides them with energy and resources to engage in the intervention [2, 15, 27]. Fourth, employees should have a high outcome expectancy in order to voluntarily participate in the intervention [12]. Fifth, middle managers should support the intervention [24]. Sixth, when employees' participation is initiated and support by peer-mentoring, there should be training and participatory recruitment process for employees who are supposed to provide peer-mentoring [4]. Seventh, there should be a positive economic environment surrounding the organisation and a lack of unfavourable internal events (e.g., abrupt transition in top corporate leadership) in the organisation [5]. Eight, there should be structural resources in place (e.g., existing practices and meetings among managers and employees) that facilitate participation [1, 27].

Twenty-two intervention studies reported the positive effects of employees' participation [1, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28]. We synthesised eight studies that reported employees' participation, on its own, produced

positive outcomes [3, 4, 14, 15, 22, 25, 27, 28]. As for proximal outcomes, employees' participation improved psychosocial risk management by enhancing employees' awareness of their psychosocial working conditions and their capacity to manage psychosocial working conditions [27]. In terms of intermediate outcomes, this mechanism improved psychosocial working conditions by: improving employees' perceived autonomy [15]; improving employees' perceived social support [14, 15, 28]; and, reducing targeted adverse psychosocial factors [3]. As for distal outcomes, this mechanism improved employees' health and wellbeing by: decreasing employees' blood pressure and protecting them against increased psychosomatic complaints [4]; improving employees' job satisfaction, affective wellbeing, and mental health [15, 25, 27]; decreasing employees' discomfort [27]; and, significantly reducing employees' burnout [3]. In addition, this mechanism improved organisational outcomes by improving employees' productivity [25] and customers' perceived quality of services [22]. This evidence can be synthesised into the following realist programme theory.

Realist programme theory 3: ***If*** there is a climate of trust, openness, and support in the organisation, existing job design and employee existing level of health and wellbeing are reasonably good, employees have a high outcome expectancy, middle managers support the intervention, there are training and participatory recruitment process for employees who provide co-workers' support, there is a positive economic environment and a lack of unfavourable internal events, and there are structural resources in the organisation (*contextual factors*); ***then*** employees' participation in the process of changing the way work is designed, organised, and managed (a *participatory mechanism*) improves psychosocial risk management by enhancing employees' awareness of their psychosocial working conditions and their capacity to manage psychosocial working conditions (*proximal outcomes*); improves psychosocial working conditions by improving employees' perceived autonomy

and perceived social support and reducing adverse psychosocial working conditions (*intermediate outcomes*); improves employees' health and wellbeing by improving their job satisfaction, affective wellbeing, and mental health, reducing their blood pressure, discomfort, and burnout, and protecting them against increased psychosomatic complaints (*distal outcomes*); and, ultimately, improves organisational outcomes by improving employees' productivity and customers' perceived quality of services (*distal outcomes).*

Senior Management Support. Senior management support was an important mechanism in developing and implementing organisational interventions. In the reviewed organisational intervention studies, senior management support had two aspects. First, in terms of process (i.e., 'how to'), senior managers supported organisational interventions by committing to the intervention at the start of the intervention [6, 20] and allocating resources to the intervention [4, 6]. Second, in terms of content (i.e., 'what to'), senior managers supported organisational interventions by engaging in the development and implementation of the intervention activities [17] and tailoring the intervention to fit with the organisational contexts and individuals within the organisation [17].

Two studies revealed two pre-conditions for triggering senior management support and achieving desired outcomes [4, 20]. First, there should be no conflict between the mission and objectives of the organisation and the aims and objectives of the intervention [20]. Second, there should be sufficient resources in the organisation in terms of finance, human resources, time, and infrastructure to conduct the intervention [4].

Three intervention studies reported that senior management support, in interaction with other mechanisms, produced positive outcomes [4, 6, 17]. As for intermediate outcomes, senior management support improved psychosocial working conditions by improving job design (e.g., demand and control) [6] and work-related characteristics (e.g., emotional

resources, teamwork, training and development, co-workers' support) [4, 6, 17]. In terms of distal outcomes, this mechanism improved employees' health and wellbeing by improving employees' job satisfaction [17], reducing their concentration problems [17], and increasing their morale [6]. Besides, this mechanism improved organisational outcomes by improving team performance [17], improving quality and positive performance management [6], and decreasing organisational sickness absence duration [6]. This evidence can be synthesised into the following realist programme theory.

Realist programme theory 4: ***If*** there is alignment between the mission and objectives of the organisation and the aims and objectives of the intervention and there are sufficient resources in the organisation (*contextual factors*); ***then*** senior management support of the intervention (a *mechanism*) improves psychosocial working conditions by improving job design and work-related characteristics (*intermediate outcomes*); improves employees' health and wellbeing by improving their job satisfaction and morale and reducing their concentration problems (*distal outcomes*); and, ultimately, improves organisational outcomes by improving team performance and performance management and decreasing organisational sickness absence duration (*distal outcomes*).

Middle Management Support. Middle management support was a vital mechanism for the success of organisational interventions. In the reviewed organisational intervention studies, middle management support had two components. First, in terms of process (i.e., 'how to'), middle managers supported organisational interventions by: committing to the intervention at the start of the intervention [20]; demonstrating positive attitudes and actions towards the intervention [13]; and, following structured intervention processes (e.g., attending regular meetings, workshops, training sessions, focus groups, and brainstorm sessions) [1, 7, 12, 18]. Second, in terms of content (i.e., 'what to'), middle managers supported organisational interventions by: engaging in the development and implementation

of the intervention activities [1, 10, 11, 16, 18, 20, 21]; tailoring the intervention to fit with the organisational contexts and individuals within the organisation [1, 7, 10]; enacting transformational leadership [13]; and, enacting Kaizen leadership (i.e., using Kaizen tools in the intervention activities) [24].

Four studies revealed five pre-conditions for triggering middle management support and achieving desired outcomes [4, 12, 16, 24]. First, there should be a strong commitment by senior management in terms of developing a vision and strategy for the intervention and allocating the necessary resources for developing and implementing the intervention activities [12]. Second, the pre-intervention working conditions should be at a moderate to a good level [16]. Third, middle managers should be in good mental and physical health to support the intervention [4]. Fourth, there should be training for middle managers on how to conduct the intervention [4]. Fifth, employees should participate in the intervention as it influences middle managers' support of the intervention [24].

Ten intervention studies reported that middle management support, either on its own [13, 16] or with other mechanisms [1, 7, 10, 11, 12, 18, 21, 24], produced positive outcomes. As for proximal outcomes, middle management support improved psychosocial risk management by enhancing employees' awareness of the links between psychosocial working conditions and health [12] and their occupational self-efficacy [21]. In terms of intermediate outcomes, this mechanism improved psychosocial working conditions by improving job design (e.g., demands, resources), psychosocial working conditions (e.g., participative safety, decision latitude, social support from middle managers) [7, 10, 12, 18], and employees' psychological contract fulfilment regarding job characteristics [11]. As for distal outcomes, this mechanism improved employees' health and wellbeing by improving employees' self-rated health, wellbeing, and job satisfaction [11, 13, 16, 24] and protecting employees against increased qualitative job insecurity [1]. In addition, this mechanism improved organisational

outcomes by increasing employees' work ability [13, 24] and job performance [11]. This evidence can be synthesised into the following realist programme theory.

Realist programme theory 5: ***If*** senior managers are committed to the intervention, existing working conditions and middle managers' existing level of health and wellbeing are reasonably good, there is training for middle managers on how to conduct the intervention, and employees participate in the intervention (*contextual factors*); ***then*** middle management support of the intervention *(a mechanism)* improves psychosocial risk management by enhancing employees' awareness of healthy psychosocial working conditions and their occupational self-efficacy (*proximal outcomes*); improves psychosocial working conditions by improving job design, psychosocial working conditions, and employees' psychological contract fulfilment regarding job characteristics (*intermediate outcomes*); improves employees' health and wellbeing by improving their self-rated health, job satisfaction, and wellbeing, and protecting them against increased job insecurity (*distal outcomes*); and, ultimately, improves organisational outcomes by increasing employees' work ability and performance (*distal outcomes*).

External Consultants/Researchers Support. External consultants/researchers support was a mechanism to ensure the desired outcomes of organisational interventions. In the reviewed organisational intervention studies, external consultants/researchers supported the interventions by providing training to employees and/or managers [7, 12, 19] and supervising, supporting, and facilitating the whole or a part of intervention process [2, 6, 8, 10, 11, 17, 18, 21, 23, 26].

Two studies revealed two pre-conditions for enabling external consultants/researchers to have a positive effect on outcomes [6,7]. First, managers of the organisation need to

cooperate with external consultants/researchers [7]. Second, external consultants/researchers should have the necessary expertise in organisational psychology [6].

Eleven intervention studies reported that external consultants/researchers support, interacting with other mechanisms, produced positive outcomes [6, 7, 8, 10, 11, 12, 17, 18, 21, 23, 26]. As for proximal outcomes, external consultants/researchers support improved psychosocial risk management by increasing employees' awareness of the links between psychosocial working conditions and health [12] and their occupational self-efficacy [21]. In terms of intermediate outcomes, this mechanism improved psychosocial working conditions by improving job design (e.g., demands, control, resources), psychosocial work factors (e.g., participatory management, teamwork, co-workers' support) [6, 7, 10, 12, 17, 18, 23, 26], and employees' psychological contract fulfilment regarding job characteristics [11]. As distal outcomes, this mechanism improved employees' health and wellbeing by increasing employees' wellbeing, morale, and job satisfaction [6, 11, 17] and reducing their concentration problems and burnout [17, 23]. In addition, this mechanism improved organisational outcomes by improving performance and quality and positive performance management [6, 11, 17] and decreasing organisational sickness absence incidences and duration [6, 8]. The above evidence can be synthesised into the following realist programme theory.

Realist programme theory 6: ***If*** managers of the organisation cooperate with external consultants/researchers who have the necessary expertise in organisational psychology (*contextual factors*); ***then*** external consultants/researchers support of the intervention (a *mechanism*) improves psychosocial risk management by increasing employees' awareness of healthy psychosocial working conditions and their occupational self-efficacy (*proximal outcomes*); improves psychosocial working conditions by improving job design, psychosocial work factors, and employees' psychological contract fulfilment regarding job characteristics

(*intermediate outcomes*); improves employees' health and wellbeing by improving their job satisfaction, morale, and wellbeing, and reducing their concentration problems and burnout (*distal outcomes*); and, ultimately, it improves organisational outcomes by improving performance and performance management and reducing organisational sickness absence incidences and duration (*distal outcomes*).

Figure 2 shows a summary of the synthesised realist programme theories.

[INSERT FIGURE 2 ABOUT HERE]

Outcome Evaluation

As can be seen in the developed realist programme theories, the outcomes are relatively similar across different realist programme theories. The reason for this similarity of outcomes is that in the majority of the included intervention studies, a group of mechanisms working together produced outcomes, so we could not attribute a specific outcome to a specific mechanism. However, we can reflect on (1) a general pattern of outcomes across realist programme theories and (2) how specific mechanisms *might have* produced outcomes; these reflections can be explored further in future organisational intervention studies.

Regarding the general pattern of outcomes across realist programme theories, we observed that outcomes of organisational interventions can be classified into *proximal*, *intermediate*, and *distal outcomes*. Regarding *proximal outcomes*, some studies reported that organisational interventions improved employees' psychosocial risk management (i.e., increased employees' awareness of their psychosocial working conditions and their capacity to manage psychosocial working conditions) [12, 21, 27]. As for *intermediate outcomes*, a number of studies outlined that organisational interventions improved psychosocial working conditions (e.g., employees' perceived autonomy, employees' perceived social support, teamwork, relational job characteristics) [3, 4, 6, 7, 10, 11, 12, 14, 15, 17, 18, 23, 26, 28].

Finally, concerning *distal outcomes*, (1) many studies reported that organisational interventions improved employees' health and wellbeing (i.e., reduced employees' discomfort, concentration problems, blood pressure, psychosomatic complaints, stress, job insecurity, and burnout, and increased employees' job satisfaction, affective wellbeing, morale, and health and safety) [1, 3, 4, 5, 6, 11, 13, 15, 16, 17, 23, 24, 25, 27] and (2) several studies found that organisational interventions improved organisational outcomes (i.e., decreased employees' sickness absence and turnover, improved employees' productivity and work ability, and increased team performance, sales, quality and positive performance management, and customers' perceived quality of services) [5, 6, 8, 11, 13, 17, 22, 24, 25].

By investigating outcomes at a lower level, we can reflect on how specific mechanisms *might have* produced outcomes. Regarding the mechanism of implementation adherence, it seems a high level of implementation adherence will enhance employees' exposure to changes, this will in turn enhance employees' perception of changes that will consequently improve psychosocial working conditions and employees' health and wellbeing [21, 23]. Concerning the mechanism of communication, it seems that a high level of communication will improve employees' awareness of the intervention process and of their psychosocial working conditions that will improve employees' health and wellbeing and organisational outcomes [5, 8]. Regarding the mechanism of employees' participation, it seems that employees' participation will improve employees' awareness of their psychosocial working conditions and their capacity to manage psychosocial working conditions [27], it will improve employees' perception of changes [15], and there will be association between employees' perception of changes and improved psychosocial working conditions, improved employees' health and wellbeing, and improved organisational outcomes [3, 4, 14, 15, 22, 25, 27, 28]. About the mechanism of senior management support, our observation is that a high level of senior management support will result in high levels of employees' participation,

middle management support, implementation adherence, and their subsequent outcomes [4, 6, 17]; this implies the indirect, positive effect of senior management support on intervention outcomes. As for the mechanism of middle management support, it seems that (1) employees' perceived middle management support will improve psychosocial working conditions and employees' health and wellbeing [13, 16, 24] and (2) a high level of middle management support will lead to high levels of employees' participation, communication, implementation adherence, and their subsequent outcomes [1, 7, 10, 11, 12, 16, 18, 21, 24]; these show both direct and indirect, positive effects of middle management support on intervention outcomes. Finally, regarding the mechanism of external consultants/researchers support, our observation is that a high level of external consultants/researchers support will result in high levels of implementation adherence, communication, employees' participation, senior management support, middle management support, and their subsequent outcomes [6, 7, 8, 10, 11, 12, 17, 18, 21, 23, 26]; this reveals the indirect, positive effect of external consultants/researchers support on intervention outcomes.

DISCUSSION

Summary of Findings and Strengths

To enhance our knowledge of the "how to" of organisational interventions, we conducted a realist synthesis exploring which realist programme theories could be synthesised from the existing literature. In the present realist synthesis, we identified six realist programme theories (also known as CMO configurations) that may guide managers and occupational health practitioners when designing, implementing, and evaluating organisational interventions. We analysed and synthesised empirical evidence from a wide range of organisational intervention studies published in 28 journal articles. These studies using a range of methods reported various outcomes produced by the process mechanisms of

implementation adherence, communication, employees' participation, senior management support, middle management support, and external consultants/researchers support.

To our knowledge, this is the first realist synthesis of organisational interventions with evidence from 'real world' intervention studies. Despite the complexities and diversities of organisational interventions, we identified and synthesised evidence to develop six realist programme theories. The strength of this realist synthesis is that, through these realist programme theories, it improves the understanding of what works for whom in which circumstances. Regarding 'what works?', we highlighted the most promising process mechanisms and showed how each mechanism operated in the organisational interventions. For instance, regarding the mechanism of employees' participation, employees engaged in identifying psychosocial working condition problems, developing action plans, implementing action plans, and tailoring the interventions to fit with their specific organisational contexts. Regarding 'for whom in which circumstances?', we highlighted the contextual factors that affected the operation of process mechanisms. For example, regarding the mechanism of employees' participation, 'employees with moderate pre-intervention health' is an example of 'for whom?' this mechanism will be triggered, and 'high pre-intervention level of autonomy' is related to 'in which circumstances?' this mechanism will be triggered. In this regard, although there were some mechanisms that only triggered in certain contexts, there were some general pre-intervention conditions (i.e., *omnibus contextual factors*) that were necessary across many of the mechanisms. These included organisational resources (e.g., finance, human resources, time, infrastructure) and individual resources (e.g., knowledge, skills, motivation, health and wellbeing of employees and managers). By including a wide range of organisational interventions conducted by different disciplinary teams with different goals, this synthesis highlights how interactions between mechanisms and contextual factors

produce outcomes. As such, it makes an important potential contribution to designing, implementing, and evaluating future organisational interventions.

Our findings showed that knowledge about the complex interactions between contexts, mechanisms, and outcomes (CMOs) is rather embryonic. First, a mechanism may interact with other mechanisms over the intervention period, hence, a group of mechanisms working together produce the outcomes. For instance, in the intervention study by Tafvelin, von Thiele Schwarz, Nielsen, and Hasson (2019), employees' participation in the initiation phase (a *mechanism*) predicted perceive line managers' support in the active phase (another *mechanism*), which in turn predicted employees' participation in the active phase (another *mechanism*); in turn, these mechanisms interacted to influence employees' job satisfaction in the sustained phase (an *outcome*) [24]. Second, a mechanism may act as a contextual factor for triggering other mechanisms. For instance, Jenny et al. (2015) argued that strong commitment from senior managers through supporting and directing team managers (a *mechanism* working as a *contextual factor*) was a critical factor for team managers to pursue changes with their team (a *mechanism*) [12]. Third, an outcome may act as a contextual factor for triggering mechanisms (known as a ripple effect, Jagosh et al., 2015). For instance, Nielsen and Randall (2012) found that pre-intervention levels of autonomy and job satisfaction (*outcomes* working as *contextual factors*) predicted the degree of employees' participation in the planning and implementation of the intervention (a *mechanism*) [15]. Among the reviewed studies, only the study by Tafvelin et al. (2019), as the first study, developed a temporal perspective on the interactions between process mechanisms and outcomes in organisational interventions and provided evidence that CMOs were not equally important during all of the intervention phases. They argued that the alignment between CMOs over the intervention period improves the accumulation of resources (i.e., resource caravans) over the intervention period to achieve the intervention desired outcomes.

Our synthesis showed that good pre-intervention job design and employees' health and wellbeing predict better post-intervention job design and employees' health and wellbeing [2, 15, 27]. This link can be explained by the Conservation of Resources (COR) theory (Hobfoll, 1989) that would suggest employees experiencing a certain level of pre-intervention resources try the hardest to increase these resources during the intervention. On the other hand, organisations with less optimal conditions have few resources to initiate organisational intervention. In this case, building resources at the lower levels will enable employees and managers to engage in the organisational intervention. Therefore, we recommend conducting workplace interventions at the Individual-, Group-, and/or Leader-levels to develop resources before conducting the organisational intervention. For instance, at the Individual-level, training employees in problem-solving and participatory decision-making can improve employees' self-efficacy. At the Group-level, implementing teamwork structures can build social capital and improve trust between managers and employees. Lastly, at the Leader-level, training leaders on transformational leadership can improve leaders' leadership skills. As such, we suggest multi-level interventions where, through primary interventions at Individual-, Group-, and/or Leader-levels, employees and managers gain additional resources to successfully initiate, implement, and maintain the organisational intervention (Nielsen et al., 2017).

Limitations and Future Research Directions

This realist synthesis, however, encountered two groups of synthesis process limitations and literature limitations. Our synthesis process suffers from three limitations. First, we limited our search strategy to academic literature in peer-reviewed journals. This limitation was due to our quality appraisal which required relevant and rigorous evidence. We believe that including grey literature (i.e., non-academic and non-commercial) describing interventions in different contexts, including both successful and unsuccessful intervention studies and

including less relevant and less rigorous studies in future syntheses could provide additional information on how and why different interventions in different contexts succeed or fail.

Second, there were various explicit and implicit mechanisms, multiple contextual factors, and diverse outcomes in the reviewed intervention studies. Identifying these elements particularly the implied ones and differentiating them from each other (e.g., mechanism from contextual factors) in each study and synthesising findings across the reviewed studies into realist programme theories were challenging and subject to the authors' discretion. This discretion is critical as the overlaps between mechanisms, contextual factors, and outcomes might create issues in explaining the causal link among them. However, this is true for any realist synthesis manifesting the complexity of organisational intervention research (Coxon, Nielsen, Cross, & Fox, 2017). To minimise this, all authors in this realist synthesis involved in the iterative processes of data extraction, analysis, and synthesis.

Third, in analysing and synthesising the mechanism of communication and its causally related contextual factors and outcomes, we found evidence about communications between the steering group and employees and among organisational sub-units. The communications among employees, middle managers, senior managers, and external consultants/researchers were implied in their engagement in the interventions, thus were addressed in the realist programme theories about employees' participation, senior management support, middle management support, and external consultants/researchers support.

Regarding the literature limitations, we observed three literature limitations. First, our findings showed that intervention studies mainly lack details about contextual factors and their influence on triggering mechanisms and producing desired outcomes. In addition, while in the majority of reviewed intervention studies (n=19, 68% of the included studies) a group of mechanisms working together produced the intervention outcomes, a few intervention

studies tested the causal links between a specific mechanism to a specific outcome. As such, in our synthesis, we could ascribe a few outcomes to one mechanism on its own (i.e., employees' participation), but for other mechanisms, we ascribed the intervention outcomes to all mechanisms that working together produced the intervention outcomes (Lacouture et al., 2015; Pawson & Tilley, 2004). We recommend future intervention studies should: first, identify contexts, mechanisms, outcomes, and their causal links in the form of CMO configurations at various intervention phases including preparation, screening, action planning, and implementation; second, analyse the temporal interactions between the CMO configurations over the intervention period; third, provide suggestions on how to align CMO configurations to finally improve employees' health and wellbeing and organisational outcomes. In addition, we recommend future realist syntheses of organisational interventions to use our realist programme theories as their initial realist programme theories and try to test and refine them. Testing and refining means synthesising more empirical evidence from the organisational interventions literature into the initial realist programme theories to promote the understanding of what works for whom in which circumstances.

Second, a large percentage (53%) of the organisational intervention studies used only quantitative methods. While understanding contextual factors, mechanisms, and outcomes is crucial to what works for whom in organisational interventions, using only quantitative methods does not allow for rich exploration of for example concurrent events in the contexts which may facilitate or hinder mechanisms being triggered. Therefore, we recommend future organisational interventions should use mixed methods to examine what works for whom in which circumstances.

Third, a high number of organisational interventions were conducted in Western Europe (n=21, 75% of the included studies), particularly in Denmark (n=8, 28%). A possible explanation for the high incidence in these countries is the context in which the organisations

exist. First, most of the countries included in our review are members of the European Union. According to the 89/391/EEC – OSH Framework Directive (EU-OSHA, 2008), employers in the European Union have a legal obligation to ensure the safety and health of workers in every aspect related to work, this onus is on addressing the antecedents of poor safety and health. The most recent ESENER (EU-OSHA, 2019) found that 89.2% of organisations reported the main reason for addressing health and safety is the 'fulfilment of legal obligation'. Second, it is the responsibility of national states to translate this Directive into national policy. This has resulted in national policies such as the Management Standards in the UK, Work Positive in Ireland, and the INAIL approach to psychosocial risk management in Italy, all of which provide guidance on how to design and implement organisational interventions (Nielsen et al., 2010). Third, as stated in a review of prominent European national policies by Nielsen et al. (2010), all the national policies emphasised the importance of employees' participation and establishing a steering group composed of both employers and employees to ensure employees' participation (i.e., indirect participation for most employees). Fourth, the European Social Partners including trade unions and employer associations are encouraged by the Council of the European Union (2000) to directly or indirectly involve in organisational interventions (e.g., through joint consultive committees and collective bargaining). Finally, the alignment of organisational interventions' aims and values (e.g., improving employees' health and wellbeing through fostering teamwork) with national values, and availability of personal and social resources (e.g., teamwork, problem-solving skills) in Western Europe encourage researchers, practitioners, organisational managers, and employees to engage in the organisational initiatives including interventions (Vaskova, 2007). Together, supportive overarching contextual factors (i.e., EU legislation and the translation into national policies, employing the core principle of participation,

utilising Social Partners' assistance, and alignment of national cultural values with interventions' aims and values) facilitate conducting organisational interventions.

CONCLUSION

This realist synthesis aimed to examine what works for whom in which circumstances by identifying and synthesising various mechanisms, contextual factors, and outcomes in published organisational interventions into six realist programme theories. We do not claim to yield final realist programme theories, but suggest that the identified theories should be tested and refined (e.g., by adding more tested CMO elements) in future organisational interventions whose ultimate goal is improving employees' health and wellbeing. Hence, we conclude that the synthesised realist programme theories contribute to existing knowledge and are highly beneficial for practice and policy decision-makers to design, implement, and evaluate future organisational interventions. Overall, we suggest that future research should use mixed methods to design, implements, and evaluate organisational interventions by addressing how different mechanisms in specific contexts produce specific outcomes.

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TABLE 1 Authors and Publication Year of the Included Studies with a Number as the Identifier

[1]: Abildgaard et al. (2018)	[12]: Jenny et al. (2015)	[23]: Sørensen & Holman (2014)
[2]: Arapovic-Johansson et al. (2018)	[13]: Lundmark et al. (2017)	[24]: Tafvelin et al. (2019
[3]: Bourbonnais et al. (2011)	[14]: Nabe-Nielsen et al. (2011)	[25]: Tsutsumi et al. (2009)
[4]: Busch et al. (2017)	[15]: Nielsen & Randall (2012)	[26]: Uchiyama et al. (2013)
[5]: DeJoy et al. (2010)	[16]: Nielsen & Randall (2009)	[27]: von Thiele Schwarz et al. (2017)
[6]: Dollard & Gordon (2014)	[17]: Niks et al. (2018)	[28]: Yoshikawa et al. (2013)
[7]: Eklof & Ahlborg Jr (2016)	[18]: Nylén et al. (2017)	
[8]: Framke et al. (2016)	[19]: Oude Hengel et al. (2012)	
[9]: Gupta et al. (2018)	[20]: Schelvis et al. (2016)	
[10]: Hasson et al. (2014)	[21]: Schelvis et al. (2017)	
[11]: Holman & Axtell (2016)	[22]: Schneider et al. (2019)	

FIGURE 1 Flowchart of Search

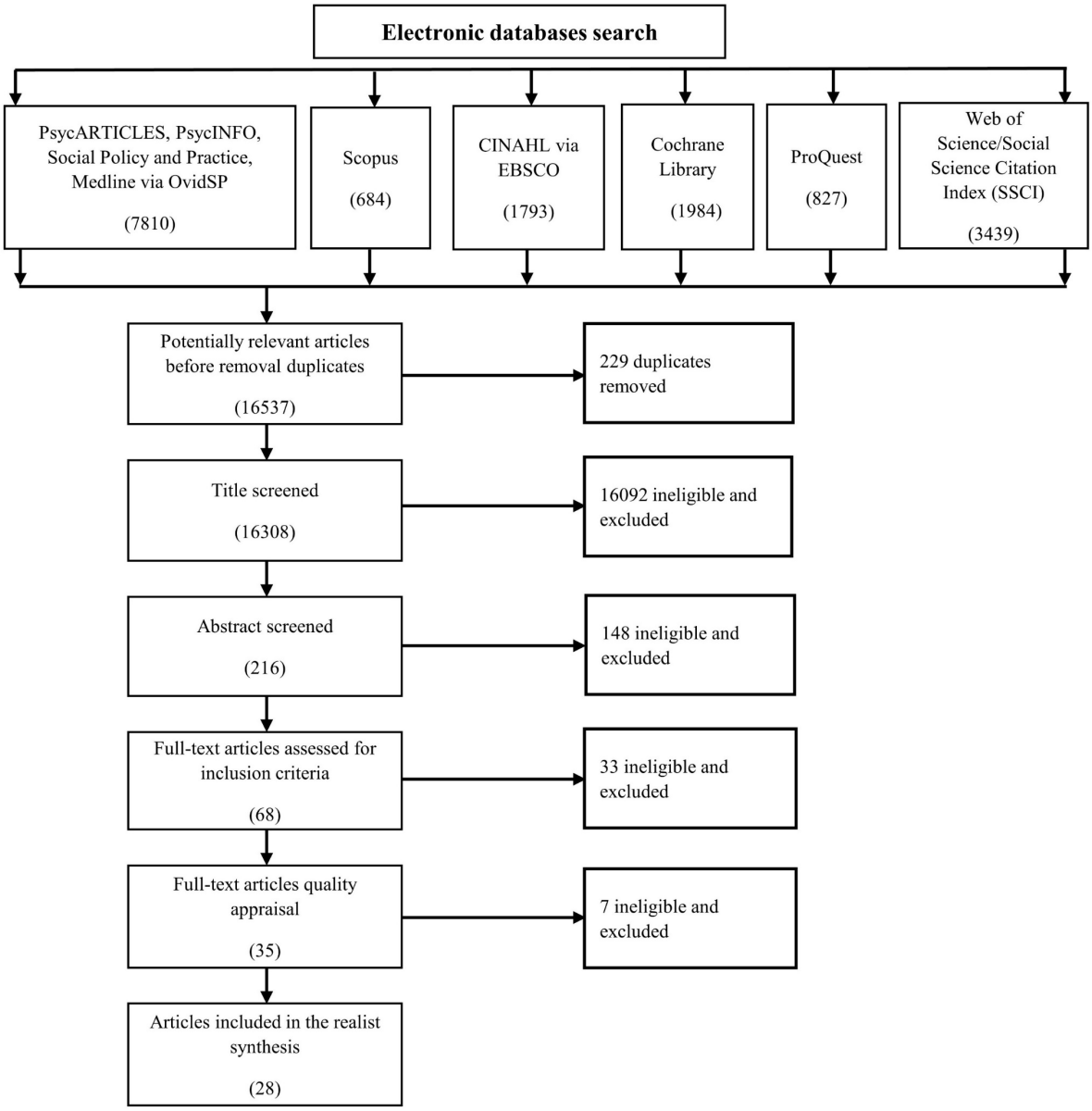

FIGURE 2 A Summary of the Synthesised Realist Programme Theories