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Coaching Into Well-being

A realist synthesis of a cognitive behavioural coaching intervention in an Egyptian technology organisation.

Researcher: Ola Amr Abdelfatah
ID: 35198845

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Abstract

Cognitive Behavioural Coaching (CBC) is “an integrative approach which combines the use of cognitive, behavioural, imaginal, and problem-solving techniques and strategies within a cognitive behavioural framework to enable clients to achieve their realistic goals” (Palmer & Szymanska, 2008, p. 86). Although CBC has been the most cited approach towards evidence-based coaching, its utility in conventional, more purely outcome-driven reviews has not been universally supported (Minzlaff, 2019). This PhD proposes further research using a form of evidence synthesis from a different theoretical and methodological perspective to address some evidence shortcomings and thus better inform practice.

The proposed methodology, referred to as realist methodology, aims to uncover more about the context and mechanisms by which an intervention generates intended and, at times, unintended outcomes. This study adopts a realist methodology to evaluate an organisational ‘CBC trial run’ to gather evidence about the programme’s mechanisms and effectiveness in generating employee well-being related outcomes (Graf & Dionne, 2021). The research question investigated is:

Regarding workplace CBC interventions, what works, or does not work? For whom? In what context and how?

The research is operationalised in two phases. First is a realist review phase, which is a form of literature review that aims to understand deep generative mechanisms (Pawson et al., 2005). In accordance with realist methodology, the review method, and findings (Chapter 3) are presented in terms of initial programme theories, i.e. hypothesised ideas on how, when, and why the programme works or does not work.

The second is a realist synthesis phase. The realist synthesis attempts to test out these provisional theories regarding the CBC programme and understand “what works for whom in what circumstances” empirically, through collecting and analysing primary data (Greenhalgh et al., 2017b, p. 1). This empirical part of the methodology proceeded with evaluating and refining initial programme theories (produced by the literature review) via realist interviews. Eight stakeholders were interviewed including one coach, one HR representative and six coachees. Data from the review were analysed using NVivo, while interview data were examined through NVivo's coding structure from the review, alongside a theory refinement template, adopted from Gilmore et al. (2019).

Seven programme theories regarding CBC effectiveness were initially identified through the realist review, with substantial theory refinements made through the realist synthesis. Four novel theories regarding the programme implementation process were added during the synthesis. This study is the first realist synthesis to explore CBC well-being interventions in organisational contexts. Thus, it contributes to organisational intervention research as well as coaching theory. It also includes other practical recommendations for policymakers, coaches and coachees.

Table of Contents

Abstract	3
Table of Tables.....	7
Table of Figures	8
Acknowledgement.....	9
Declaration	10
Glossary of Terms	11
Chapter 1. Research Background	12
Well-being Interventions in the Workplace	12
Research Phases: Realist Review and Synthesis.....	17
Chapter 2. Literature Review.....	19
Introduction: Coaching	19
Review Methods.....	24
Step 1: Literature Scoping: Defining Review Scope and Scoping Searches	25
Step 2: Progressive Focussed Literature Search and Initial Programme Theories	27
Steps 3 and 4: Document Appraisal and Data Extraction.....	28
Step 5: Analysis and Synthesis Process.....	30
Review Findings	31
Study and Sources Characteristics.....	31
Overview of Reported Outcomes	33
Main Findings.....	36
Comparison with Existing Literature	45
Realist Review: Strengths, Limitations and Future Direction	47
Chapter 3: Research Methodology.....	49
Philosophical Assumptions	49
Research Design.....	54
Research Context.....	54
Organisation’s Role: Coaching Programme Trial Run.....	54
Programme Strategy.....	56
Researcher’s Role: Researcher’s Positionality	59
Researcher’s Role: Reflexivity and Potential Conflict of Interest	60
Realist Interviews	62
Data Preparation, Analysis and CMO Configuration	64
Ethical Considerations	68
Participant Recruitment and Data Collection.....	69
Data Management.....	70
Further Ethical Considerations	71

Chapter 4: Research Findings	72
Summary of collective coaching experience	72
CBC Programme Theory Refinement.....	73
Cognitive Aspects.....	76
CMO 1 - Coaching Conversations as a Way of Exploring Psychological Blocks	76
CMO 2 - Coaching Conversations as a Way for Exploring Improved Emotional Response	86
CMO 3 - Coaching Conversations for Cognitive Re-orientation	90
Behavioural Aspects	96
CMO 4 - Behavioural Experiments.....	96
CMO 5 - Goal Setting	102
Goal Progression Aspect.....	107
CMO 6 - Progress Monitoring and Feedback.....	107
CMO 7 - Progress Evaluation	114
Novel CMOs	119
CMO 8 - Programme Introduction and Voluntary Participation	119
CMO 9 – Programme Logistics and Implementation.....	122
CMO 10 – Organisational Support.....	125
CMO 11- Post Coaching Progress Maintenance	127
Chapter 5: Discussion	131
Findings in Light of Existing Theory	132
Findings in Light of the Organisational Context	140
Programme Introduction	140
Organisational Support.....	141
Programme Logistics.....	142
Post Programme Maintenance	143
Contribution to Organisational Programme Planning and Evaluation Knowledge	144
Contribution to Coaching Theory	145
Contribution to Practice: Practical Implications	147
Research Strengths.....	149
Research Challenges and Limitations	150
Future Research Recommendations	154
Conclusion	156
References	157
Appendix 1: Search Strategy.....	171
Appendix 2: Sample Articles appraisal and relevance assessments.....	173
Appendix 3: Data Extraction Form.....	175
Appendix 4: List of relevant articles for the realist review.....	177

Appendix 5: Training Materials.....	200
Appendix 6: Realist Interview Guidelines.....	228
Appendix 7: CMO Interview Tracker	234
Appendix 8: Ethics Application	235
Appendix 9: Research Recruitment – Announcement E-mail	254
Appendix 10: Participant information Sheets	256
Appendix 11: Consent Form	267
Appendix 12: Open-ended Questionnaire.....	269
Appendix 13: Transcription Confidentiality Agreement.....	270
Appendix 14: Theory Refinement Template	271
Appendix 15: Sample Code Configuration and Data Analysis for Review	272
Appendix 16: List of C, M, O codes and refinements	289

Table of Tables

Table 1: Compiled successful coaching parameters as per McDowall (2014); Pandolfi (2020); and Wang et al. (2021).....	20
Table 2: Appraisal Criteria (Data et al., 2023; Wong et al., 2015)	28
Table 3: Relevance Criteria	29
Table 4: Included studies reported intervention descriptions and coaching durations.....	36
Table 5: Review Findings: Context – Mechanism – Outcomes Configurations	40
Table 6: CBC Programme Strategies	59
Table 7: Participant Characteristics	69
Table 8: Key for CMO configurations’ coding	74
Table 9: CMO 1 Refinements	85
Table 10: CMO 2 Refinements	89
Table 11: CMO 3 Refinements	95
Table 12: CMO 4 Refinements	101
Table 13: CMO 5 Refinements	106
Table 14: CMO 6 Refinements	113
Table 15: CMO 7 Refinements	118
Table 16: CMO 8 configuration.....	122
Table 17: CMO 9 configuration.....	125
Table 18: CMO 10 configuration.....	127
Table 19: CMO 11 configuration.....	130
Table 20: Summary of Synthesised CMOs	137

Table of Figures

Figure 1: Beck's Cognitive Model (Beck, 1991).....	15
Figure 2: Realist Review Process as per Pawson et al. (2005).....	25
Figure 3: Refined CIMO Framework and key realist definitions.....	26
Figure 4: Search Flow Chart.....	32
Figure 5: Context – Mechanism – Outcome Configurations	38
Figure 6: Review CIMO Framework	53
Figure 7: Research Process Flow.....	56
Figure 8: Data Analysis Framework	67
Figure 9: Proposed Research Ethical Considerations Summary	68
Figure 10: Visualisation of Programme Theories.....	75

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Declaration

I, Ola Amr Abdelfatah, declare that the thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere.

Glossary of Terms

Coaching Psychology: “The systematic application of behavioural science to the enhancement of life experience, work performance and well-being for individuals, groups and organisations who do not have clinically significant mental health issues or abnormal levels of distress” (Grant, 2006, p. 16).

Cognitive behavioural coaching: “An integrative approach that merges cognitive, behavioural, imaginal, solution-focused and problem-solving techniques within a coaching framework to achieve coachees realistic goals” (Palmer & Szymanska, 2018, p. 86).

Context: In realist methodology, it is “any condition that triggers and/or modifies the mechanism” by which programmes operate to generate an outcome (Jagosh et al., 2014, p. 4).

Context, mechanism, and outcome (CMO) configurations: “A heuristic used to generate causative explanations pertaining to outcomes.” (Jagosh et al., 2014, p. 4). It is the basic causal explanatory framework for realist reviews and evaluations. Stated as a sentence, it means ‘In this context, this mechanism generates this outcome’ (Greenhalgh, Pawson, & Wong, 2017a, p. 2).

Goal: A description of a specific target to be achieved and its evaluation standard (Locke & Latham, 2006).

Goal Feedback: Information given to an individual concerning progress towards a goal. It entails a discussion on the degree to which the evaluation standard was met during past performance which might lead to better goal striving and motivation for performance (Locke & Latham, 2006).

Mechanisms: In realist methodology, a mechanism explains how and why a programme generates specific outcomes. It represents “the generative force that leads to outcomes” (Jagosh et al., 2014, p. 5) and is activated within supportive conditions or contexts (Greenhalgh, Pawson, Wong, et al., 2017b).

Outcomes: In realist methodology, outcomes represent aspects that change as a result of a programme; they “are either intended or unintended and can be proximal (immediate), intermediate, or final (distal or occurring in the long run)” (Jagosh et al., 2014, p. 5).

Programme Theory: The implicit or explicit explanatory theory that can be used to explain specific parts of programmes or interventions (Jagosh et al., 2014, p. 4; Shearn et al., 2017).

Programme Strategy/Architecture: The descriptive elements or components of the intervention (or programme) being studied (Jagosh, 2023a; Pawson & Manzano-Santaella, 2012).

Resource Mechanisms: The components and underlying entities, processes and structures introduced by a programme in a context, i.e. the “combination of resources offered by the programme under study” (Dalkin et al., 2015, p. 3).

Reasoning Mechanisms: The “stakeholders’ reasoning in response” to resource mechanism introduced within a context that results in outcomes (Dalkin et al., 2015, p. 3).

Well-being: A multifaceted construct used among different disciplines to represent a state of health and wellness or the absence of mental illness. It can be conceptualised as “an individual’s optimal psychological experience and functioning” (Deci & Ryan, 2008, p. 1).

Chapter 1. Research Background

Well-being Interventions in the Workplace

Well-being Literature

While well-being literature might be substantial with various theoretical accounts on the concept of well-being, endemic definitional issues occur due to the multifaceted nature of the concept (Levy, 2014). This adds complexity not only in its conceptualisation and measurement but also in planning effective interventions to improve well-being. According to Danna and Griffin (1999), well-being is generally understood as individuals' possessing a positive outlook and satisfaction with various life domains. Deci and Ryan (2008, p. 1) further describe well-being as the "individual's optimal psychological experience and functioning", which is the definition followed in this thesis. One way to conceptualise well-being is by dividing it into subjective well-being (SWB), focusing on an individual's assessment of their happiness and quality of life with an affective and evaluative aspect, and psychological well-being (PWB), which has a cognitive aspect and covers an individual's need for self-fulfilment, life purpose and meaningfulness (Chen et al., 2013; Ryan & Deci, 2001). The application of SWB and PWB in an organisational context is referred to as workplace well-being.

While well-being generally encompasses all aspects of an individual's life, workplace well-being focuses on employees within workplace contexts. Interventions addressing workplace well-being are specifically tailored to the specifics of the work environment, its needs and challenges, and its impact on employees. Unlike general well-being which can be seen as the individual's responsibility, the responsibility for workplace well-being is shared between employees and employers (Khalid & Syed, 2024). Workplace well-being is argued to be a crucial aspect of organisational sustainability as it has the potential to contribute to employees' commitment. Other authors also propose that well-being has a bidirectional relationship with individual psychological resources and, thus, it has the potential to stimulate resources, such as self-efficacy, resilience and optimism, that aid in enhancing performance (Aryanti et al., 2020; Budd & Spencer, 2014). Employee well-being can be further extended not only to incorporate the traditional notions of SWB and PWB but also to focus on physical well-being, social well-being and financial well-being (Grant et al., 2007; Islam & Amin, 2021). In this thesis well-being refers to workplace employee well-being, understood as the application of SWB and PWB in workplace contexts.

Workplace Interventions

To maintain productivity safeguards, organisations invest in various human capital related interventions. In their systematic review, Denuwara et al. (2022) showcase two levels for workplace interventions. First is the organisational level, which targets improvements in the work environment and is intended as a contextual preventive measure to mitigate factors that might have adverse impacts on well-being. Second are individual-level interventions that target the improvement of employees' coping mechanisms to mitigate the risk presented by workplace environmental stressors. A common premise in the literature is in favour of organisational-level interventions as they are expected to yield more sustainable outcomes (LaMontagne et al., 2007). However, Van Agteren et al. (2021) advocate the need for a more personalised approach to intervention development to

determine the factors benefiting participants most. Also, Montano et al. (2014), using a meta-analysis, demonstrated that individual-level interventions yielded more consistent significant effects on health outcomes as opposed to a meta-analysis of organisational-level interventions. A possible reason is that conducting experiments for organisational-level interventions is more complex in terms of the scope of change, time and cost implications, therefore it becomes more complex to deliver the required level of a study's internal and external validity. Nevertheless, individual-level interventions are not without limitations, as they are unlikely to sustain long-standing well-being outcomes in the workplace because some of the more negative organisational and environmental factors may well persist. It also puts the onus for well-being on the individual employee rather than admitting the shared responsibility of well-being embedded in the employment relationship and tackling the issue at the source (Giga et al., 2003). Thus, it is argued that if the resources and time are available for organisations, combining both individual and organisational-level interventions might yield the best outcomes (Denuwara et al., 2022).

Well-being Interventions in the Workplace: Levels, effectiveness, and limitations

One recent systematic review exploring the effectiveness of various interventions aimed at improving employee well-being, divided interventions into six types, "physical, ergonomics, psychological, environmental, multi-component, and others" (Sakuraya et al., 2020, p. 1). Moreover, it reported that psychologically based individual-focused interventions, described as a sequence of activities targeted to change cognitions, behaviours, or emotional responses, were common in the employee well-being literature. In their conclusion, Sakuraya et al. (2020) showed the positive significant impact of cognitive-behavioural (CB) approaches on well-being in the workplace. In another recent comprehensive review, including 393 studies, Van Agteren et al. (2021) took a broader look at psychological interventions that were not limited by workplace contexts and were targeting mental well-being improvements. They identified 15 types of psychological interventions targeting well-being and described the prevalence of positive psychology interventions (PPIs). However, they argued that several systematic reviews reported a small effect of PPIs on well-being outcomes and advocated the use of traditional therapeutic approaches which more centrally target maladaptive thoughts and behaviours such as cognitive behavioural therapy (CBT) based approaches (Van Agteren et al., 2021). However, upon investigating CBT-based interventions concerning improving people's function to enhance mental well-being where there is not a perceived clinical difficulty (e.g. depression and anxiety), no sufficient evidence was found to suggest it could be effective in this situation. Indeed Van Agteren et al. (2021) were only able to discover two studies that met the strict inclusion criteria of using CBT to improve well-being (and not address psychological problems). The two studies examined well-being enhancements in populations who were already psychologically healthy. Thus, they concluded that CBT-based interventions were only beneficial for those with mental health problems. However, the lack of evidence makes it hard to agree with this conclusion. Accordingly, different review results have revealed ambiguity in the literature regarding the evaluation of psychologically based well-being interventions across different contexts and populations.

Additionally, some limitations and weaknesses are reported for well-being research. Van Agteren et al. (2021) showed how well-being research mostly relied on SWB outcome measures with much less attention given to PWB and other definitions of well-being. Moreover, most well-being outcome assessments rely on self-reported measures using fixed quantitative scales that can only provide a snapshot into how people are feeling without a holistic account of well-being, while other options can include behavioural observation reports and qualitative approaches. This reliance becomes particularly problematic with happiness and satisfaction measurement due to the social desirability bias, where participants tend to respond more positively to show the socially desired elevated levels, which might hinder both pre and post-intervention measures making findings imprecise (Green et al., 2006). While social desirability bias can be addressed by having a third party involved, but this still has ethical implications such as consent and conflict of interest, which can add to the complexity of the research (José Patrício Bispo, 2022). Finally, the generalisation of well-being concepts across different cultures and age groups is problematic, due to the differences in social factors and variations of notions of happiness and satisfaction. (Diener et al., 2003).

Coaching in the Workplace **Coaching Industry and need for evidence-based coaching**

One-to-one coaching, as a well-being intervention, is increasing in popularity among organisations. The International Coaching Federation (ICF) is the primary recognised accreditation body for coaching practices internationally, even though accreditation is not known to be a formal requirement for practice in the industry, with few exceptions (Schermyly & Graßmann, 2019). The ICF reports an increase in annual revenue of the coaching industry from \$1.979 billion with approximately 50,000 global practitioners in 2012, to \$2.849 billion with more than 71, 000 global practitioners in 2020 (ICF, 2012, 2020). Despite this growth, coaching as a practice is under-regulated and is not as standardised as similar mental health and well-being professions (ICF, 2012). Minzlaff (2019) discusses how coaching is regarded as an industry, rather than a profession, with the lack of a body of knowledge, standardisation of practice as well as lack of authority and barriers to entry. David (2016) criticises coaching practitioners arguing that “the word coaching has been used to avoid credentialing” (p.285). A lack of agreed standards makes it hard for organisations to assess and recruit effective coaches. Another implication is client confusion, which could lead to a risk of malpractice threatening a client’s mental health (Grant, 2016b). Nevertheless, organisational coaching is still a growing practice in organisations, attracting large amounts of funding (Grover & Furnham, 2016; Minzlaff, 2019). The rise in the popularity of the coaching industry is worrying to the extent that popular publications, such as Forbes (2018, p. 1), publish strong claims that “coaching will overtake consultancy” as a knowledge transfer and development practice for organisations. On this basis, there is a need for research and evidence-based approaches to assist in understanding whether coaching works, how, who should be qualified as a coach, and what the expected outcomes are.

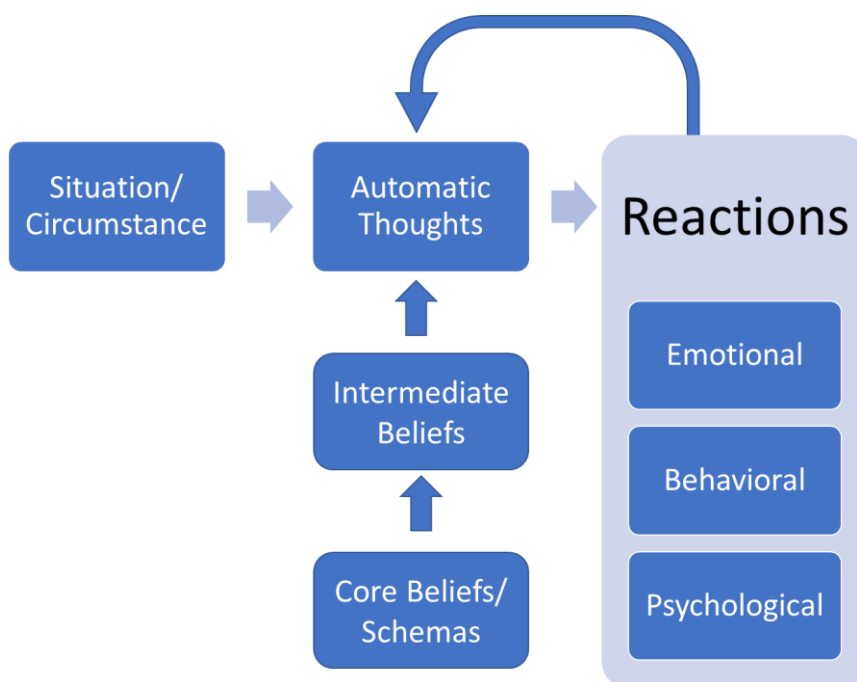
The diversity in professional coaches’ backgrounds reflects how practice draws on a range of methodological approaches and frameworks (Grant, 2006; Minzlaff, 2019). Grant (2006) proposes the term evidence-based coaching (EBC) to describe a shared theoretical knowledge base of empirical research to inform the industry (Minzlaff, 2019). This can be achieved through research in coaching psychology, which Grant (2006, p. 16) defines as “the systematic application of behavioural science to the enhancement of life experience, work

performance and well-being for individuals, groups and organisations who do not have clinically significant mental health issues or abnormal levels of distress”. Data in behavioural sciences since the 1990s until now suggest that coaching can enable behavioural change to enhance goal attainment and well-being in various domains, including work, life and health (Grant, 2003, 2015; Green et al., 2006). However, the numerous theoretical frameworks and approaches derived from behavioural sciences and psychology have been applied to coaching practices without concrete empirical testing (Lai & Palmer, 2019). Hence, insufficient evidence on how different coaching approaches lead to different outcomes and whether they are effective, increases demand for further research in this area (Athanasopoulou & Dopson, 2018; Smither, 2011; Wang et al., 2021).

Evidence-based Coaching (EBC): Cognitive Behavioural Approach

Within the limited research scope, cognitive behavioural coaching (CBC) has been the most researched form of EBC (Gardiner et al., 2013; Minzlaff, 2019). However, CBC’s initial advocacy relied on the evidence base of cognitive behavioural therapy, which is problematic as it disregards the differences between coaching and therapy in terms of target population, context and practitioner qualifications (Grover & Furnham, 2016; Neenan, 2008a). CBC has been defined as “an integrative approach that merges cognitive, behavioural, solution-focused and problem-solving techniques within a coaching framework to achieve coachees’ realistic goals” (Palmer & Szymanska, 2018, p. 86; Palmer & Williams, 2013). CBC derives its theoretical premise from several theories, such as the cognitive therapy model presented in Figure 1, as well as the goal-setting theory (Beck, 1991; Locke & Latham, 1990; Passmore et al., 2012).

Figure 1: Beck’s Cognitive Model (Beck, 1991)



The cognitive therapy model theorises that people's perception of a situation or their construction of it influences their emotions and behaviours. This perception reflects cognition which is defined in this context as "the way we think about events and the content of our thoughts" (Fenn & Byrne, 2013, p. 579). Beck (1991) presents three levels of cognition. First are an individual's core beliefs, also known as schemas, which represent the cognitive framework through which an individual organises and interprets information. Schemas usually concern beliefs about self, others, and the world, and are built throughout life experiences, thus they are deeply rooted, often from childhood, and seen as absolute. The second cognition level is intermediate beliefs or assumptions; these represent conditional rules or social guidelines stemming from perceived societal expectations. Finally, is the automatic thoughts level which represents the spontaneous and often re-occurring involuntary thoughts produced during events. They usually reflect core and intermediate beliefs and have the potential to shape one's perceptions and emotions by being positive or negative (Fenn & Byrne, 2013; Neenan, 2018).

Simplified, CBC argues that emotions and subsequent behaviours are created and maintained by thought processes. It aims to change negative thoughts that cause counterproductive behavioural patterns, along with altering cognitions through self-reflection and metacognition, to recognise problematic thinking patterns and, thus, modify them to optimise personal functioning (Passmore et al., 2012). CBC also takes a behavioural, action-based approach in which the coach and the coachee mutually design a well-structured, goal-directed set of actions towards the coachee's goals (Neenan, 2008a; Neenan & Dryden, 2013). This path is coupled with concepts from goal-setting theory which highlights the significance of determining specific and challenging goals for the enhancement of motivation and performance (Locke & Latham, 1990). CBC has the ultimate goal of preparing coachees to develop a mentality to self-coach and deal with future challenges on their own (Cox et al., 2014b; Neenan, 2008a).

Research Philosophy and Question

Despite the significant amount of literature on CBC compared to other coaching approaches, this research proposes a different methodology to address current literature shortcomings such as relying on the evidence-base of cognitive behavioural therapy and insufficient empirical evidence to establish validity. More details on these shortcomings are discussed in the critical overview of CBC research section in Chapter 2. Given the complex nature of coaching interventions, also explored in Chapter 2, a realist methodology was chosen to explore the proposed research question. Realist philosophy is ontologically objectivist, promoting the view that a reality exists independent of human consciousness. It is also epistemologically interpretivist, promoting that our knowledge of this reality can be influenced by our interpretations and viewpoints and only through this lens can it be expounded. Furthermore, realist philosophy is underpinned by the assumption of a stratified reality where there are three ontological levels. Events exist in an observable layer, however, the mechanisms of how those events occur exist in different layers that require abstraction (Wong, Greenhalgh, et al., 2013). Hence, since social events occur outside

human conception, they can only be understood through investigating and interpreting underlying features that generate observable events. These philosophical assumptions are thoroughly expanded in Chapter 3.

Realist methodology is proposed to explore CBC interventions and uncover more about the context and mechanisms by which these interventions generate well-being related outcomes (Graf & Dionne, 2021; Maxwell & Bachkirova, 2010). More precisely, the research investigates the following question,

Regarding workplace CBC interventions, what works, or does not work? For whom? In what context and how?

Research Phases: Realist Review and Synthesis

The Realist and Meta-narrative Evidence Synthesis Evolving Standards (RAMESES) project aims to provide methodological guidance and set standards for realist researchers. Three forms of social research conducted under realist philosophy are prevalent in the literature but the terms to describe different outputs are used interchangeably, which can be a source of confusion. These are realist reviews, realist syntheses, and realist evaluations (Greenhalgh, Pawson, & Wong, 2017b; Pawson, 2006b). The RAMESES guidelines propose that realist reviews are a form of systematic literature review that rely on secondary data, including grey literature, to identify theories that explain how a programme or an intervention operates (Pawson et al., 2005). A realist synthesis relies mainly on secondary data but also includes stakeholders' input to identify potential theories and test them. Testing occurs through synthesising evidence into the identified theory elements to explain the underlying causal processes of a programme. In this research, the focus is not on the programme or its outcomes but on the programme theory. Realist evaluations, on the other hand, rely mostly on primary data, usually conducted on a large scale using a mixed method design, to capture a broader view of how an intervention works, or does not, for whom, in what circumstances and why. Realist reviews and syntheses involve both theory elicitation and testing, but their emphasis differs from that of realist evaluations. Reviews and syntheses focus on developing and refining programme theories often framed at a level of generality that allows for application across various programmes addressing similar issues or inquiries. In contrast, realist evaluations, typically aim to test the initial programme theories, often developed or refined through reviews or syntheses, in real-world settings, generating tailored actionable recommendations to specific programme contexts (Greenhalgh, Pawson, & Wong, 2017b; Pawson, 2006c). Thus, a common research design for realist research is to use realist review and realist synthesis to develop programme theories and design a programme, followed by a realist evaluation to evaluate the designed programme execution in practice (Roodbari, Nielsen, et al., 2022). With regards to research methods, Renmans and Pleguezuelo (2023) discuss the qualitative methods' predominance in realist research, reporting that 97% use interviews to capture hidden mechanisms. Chapter 3 discusses realist interview methods chosen for this synthesis in more detail.

For feasibility purposes, this PhD research project undertook a realist synthesis operationalised in two phases. The first phase includes a realist review in which realist causation is established via a process of theory development and refinement. This is done through exploring and synthesising the underlying intervention-related hypotheses found in the literature to uncover causation. This uncovering requires an understanding of the programme's deep generative mechanisms that lead to outcomes (Jagosh et al., 2014; Pawson et al., 2005; Shearn

et al., 2017). The causal explanations and findings of the review are presented in terms of Context-Mechanism-Outcome (CMO) configurations detailing the elements of programme theory. Programme theory refers to the hypothesis formed around how the programme processes operate. Realist concepts and definitions are further discussed in Chapter 2. In this research, the CMO configurations represent the initial hypothesis on how CBC interventions generate goal attainment and well-being related outcomes (De Weger et al., 2020). Provisional findings from this review phase are presented in Chapter 2 as well. After the literature review phase, the provisional CMOs are used to inform a CBC programme design which allows for further empirical development and refinement using primary data collected at the next research stage. The next research phase is empirical where stakeholders' views are captured through realist interviews as detailed in Chapter 3. The qualitative segment of this synthesis attempts to understand 'what works for whom in what circumstances and how' empirically, through collecting and analysing new primary data (Greenhalgh, Pawson, & Wong, 2017b). Hence, this study proceeds with refinement of the provisional CMOs via conducting realist interviews with participants who completed the same CBC programme. This research lies within the domains of realist reviews and synthesis, focusing on the elicitation, development, and refinement of CBC programme theories. However, further theory testing and evaluation requiring larger scale evaluations is beyond this research scope.

Chapter 2. Literature Review

This chapter presents the first phase of the research, beginning with an introduction to coaching and a critical review of the literature on CBC. Next, it discusses coaching as a socially complex intervention and outlines the rationale for this review. A detailed, step-by-step account of the review methodology follows. The chapter concludes with a presentation of the review findings, highlighting provisional CMO configurations, and a discussion on the strengths and limitations of the review.

Introduction: Coaching

Coaching is acknowledged as a method for individuals to use their intrinsic competencies, together with the external available resources, to benefit their development and promote their well-being (Poell & Woerkom, 2011; Stober & Grant, 2006). Although coaching can take various interactional and non-interactional forms, including self-help resources and online courses, this research focuses on coaching as an interactive process (Sue-Chan & Latham, 2004). The coaching process usually occurs in a conversational format, with a qualified coach, to explore contextual and significant experiences with the coachee. The coaching dialogue attempts to formulate new understandings to help the coachee overcome existing obstacles in achieving goals and maintaining their well-being through new challenging experiences. Generally, coaching that is granted to any organisational member is referred to as workplace, organisational or business coaching. Other terms are given to specific types of coaching within organisations such as executive coaching, which mostly aims to enhance leadership and managerial skills for those in managerial positions (Grover & Furnham, 2016). Nevertheless, workplace coaching is regarded as a facilitative process for the employee's general learning, development and well-being (Grant, 2017b). To be classified as workplace coaching, the coaching process is usually defined in a formal agreement indicating a collaborative relationship between an external or internal coach and an organisational member. Also, since coaching is a result-oriented process, the agreement is expected to include a well-defined goal within an identified domain, such as physical health, performance, work-life balance, positive work relations, stress and emotional management, to be achieved through equipping the employee with the resources and tools needed through the systematic process of coaching (Grant, 2006; Theeboom et al., 2014). Several reviews have been conducted to explore the parameters of effective coaching and the expected outcomes, including details about the characteristics of the coach, coachee and their relationship, the coaching approach used as well as the coaching context that seems to be more predictive of successful outcomes. Table 1 summarises some of the effective coaching characteristics, parameters and outcomes identified in these reviews (Jarosz, 2016; Lai & McDowall, 2014; Pandolfi, 2020; Wang et al., 2021).

Coach's Characteristics	Coachee's Characteristics	Coach and Coachee relationship	Coaching Approach	Coaching Context	Expected Outcomes
<ul style="list-style-type: none"> - Background - Behaviour - Expertise and skills in terms of, <ul style="list-style-type: none"> <u>Knowledge:</u> • Psychological knowledge. • Psychological coaching framework/process. • Leadership and organizational management knowledge. <u>Skills:</u> • Communication. • Building rapport: Establishing a constructive relationship. • Facilitation skills: Facilitating coachee's learning and development. <u>Ability:</u> • Openness/Authenticity/ Honesty • Integrity/Confidentiality • Objective/Non-judgemental • Enthusiasm/Passion • Commitment/Motivation to help 	<ul style="list-style-type: none"> - Motivation - Self-efficacy - Commitment - Personality - Readiness - Feedback Receptivity - Expectations - Work level/Coachee population - Goal Orientation - Socio-demographics 	<ul style="list-style-type: none"> - Quality of the relationship - Matching or attraction between coach and coachee - Trust - Understanding and managing the coachee's difficult emotions - Established two-way communication - Clear contract and transparency - Facilitation and help 	<ul style="list-style-type: none"> - Methods and techniques - Feedback - Number of sessions 	Organisational culture and support (limited research available in this area)	<ul style="list-style-type: none"> - Affective Outcomes - Cognitive Outcomes <ul style="list-style-type: none"> • General Perceived efficacy • Goal attainment - Skill-based/Performance Outcomes <ul style="list-style-type: none"> • Self-rated performance • Other-rated performance - Workplace psychological well-being

Table 1: Compiled successful coaching parameters as per McDowall (2014); Pandolfi (2020); and Wang et al. (2021)

A Critical Overview of CBC Research

In their non-systematic literature review investigating the effectiveness of CBC, Palmer and Williams (2013) identified 18 studies mostly confirming the effectiveness of CBC across contexts including workplace, health and life coaching. In another meta-analysis exploring coaching effectiveness in organisational contexts, Theeboom et al. (2014) included 18 studies, 10 of which reported using CB approaches to coaching¹, six of which had previously been identified by Palmer and Williams (2013) and four newly included. This meta-analysis confirmed the positive significant effects² of coaching on performance, well-being, work attitudes and goal-directed self-regulation. These reviews illustrate the advocated effectiveness of CBC in improving performance and well-being related outcomes in research. Nevertheless, Van Agteren et al. (2021) argue that cognitive behavioural-based interventions³, compared to other psychological-based interventions, are not significantly beneficial to the general population (i.e. people without a clinical diagnosis) as a way of improving well-being as opposed to alleviating distress. This might be due to lack of evidence as they found only two studies using CB approaches to address non-clinical populations. Similarly, when comparing the effectiveness of psychologically informed coaching interventions in the workplace, Wang et al. (2021) conclude that despite having the largest empirical data available in their included studies, CBC had lower effects compared to other psychological approaches. One proposed explanation is that as an integrative approach, combining cognitive and behavioural techniques, CBC interventions may require more time to cultivate benefits compared to other goal-focused frameworks that can meet expectations sooner within rapid workplace contexts.

Other research criticises CBC for its lack of focus on positive emotions and strengths and thus calls for combining it with positive psychology and solution-focused approaches (Dias et al., 2017). Referencing the correlational study between coaching and workplace stress by Gyllensten and Palmer (2005), Dias et al. (2017, p. 2) claim that “CBC as a single approach has failed to conclusively show that it is capable of reducing workplace stress”. This is despite its success in other non-work related contexts and scenarios such as eliminating dysfunctional cognitive patterns such as self-handicapping and perfectionism in non-clinical populations (Kearns et al., 2007). Inconsistency in findings, despite the abundant amount of research on CBC compared to other coaching approaches, calls for further research with different research methodologies to evaluate more deeply the potential mechanisms by which CBC can generate outcomes in workplaces and thus better inform practice.

The supposition of CBC effectiveness across the literature is advocated by the large evidence base available for cognitive behavioural therapy (CBT) (Neenan, 2008a). This is despite the fact that very few well-controlled studies have assessed CBC effectiveness. However, CBC and CBT hold fundamental differences. These differences entail variations in the training levels available for therapists versus coaches, the variations in coaches’ backgrounds

¹ Taking a deeper look into the nature of the aforementioned 10 studies, seven of which were randomized control trials, one of which was a quasi-experimental study in which participants were non-randomly allocated to both experimental and control groups; two of which were within-subjects design without a control group.

² Effect size was reported using Hedges g and according to Theeboom et. al (2014, p.10), “the point estimate of the overall weighted effect size (aggregated over all [18] studies and outcomes) was significant ($g = 0.66$, 95% CI, 0.39–0.93, $p = 0.000$)”.

³ In their systematic review and meta-analysis, Van Agteren et. al (2021) compare the effectiveness of various psychological-based interventions (one of which is cognitive behavioural based interventions) in improving well-being, without explicit mention of coaching. They reported that “a significant P-value for CBT-based interventions was found for the general population, but the effect size estimate failed to meet the small-effect threshold. This indicates that on average, CBT-based interventions do not reach a meaningfully beneficial effect on wellbeing in the general population”.

and qualifications (Grover & Furnham, 2016) and the involvement and influence of the organisation as a third party in the coaching contracting process (Louis & Fatien Diochon, 2018). Additionally, the social complexity which workplaces add to the coaching setting might require coaches to explore more integrative organisational-related approaches than in therapy (Shoukry & Cox, 2018). Further, unlike therapy, the effectiveness of other alternatives to coaching in addressing well-being and performance is under-investigated, even though those alternatives, such as training and education, might be less costly and time-consuming (Smither, 2011). Schermuly and Graßmann (2019) discuss the differences in target populations between coaching and therapy, pointing out that coaching targets nonclinical populations who might cope better and have better self-regulation skills, which can impact the coaching dynamics and progress. Furthermore, other coachee-related barriers to CBC's success are identified in the literature that might not be true for therapy. For instance, CBC is more likely to fail if the coachee is unable to accept emotional responsibility and cannot put in the effort required, the coachee is unable to accept coaching responsibility and erroneously attributes their current problems to other factors or if the coachee has a clinical disorder impairing their functioning (Neenan & Palmer, 2001; Palmer & Szymanska, 2008). Hence, it is important for CBC in organisations to draw on its own theories, techniques, and research.

Coaching as a social complex intervention

Coaching interventions are active interventions that rely on inputs from involved parties, including cognitive and meta-cognitive interactions between a coach and a coachee (Day et al., 2008; Grant, 2003). Further, coaching entails a series of experiences dependent on the different characteristics of the coach and the coachee. This makes coaching a longitudinal and non-linear process underpinned by different layers of theory (Wang et al., 2021). Furthermore, with the involvement of any employing organisations as a third influential party in the coaching dynamic, the intervention implementation becomes subject to competing interests and the influence of the most powerful group i.e. usually the employing organisation, hence its success relies on the entire implementation chain (Athanasopoulou & Dopson, 2018; Lai & McDowall, 2014). Moreover, coaching interventions are context-dependent, given that they are influenced by organisational culture, leadership, interpersonal relations, competing priorities and timing (Theeboom et al., 2014). Consequently, these interventions are subject to change and development, based on internal feedback loops (Cox et al., 2014a; Peterson, 2007). Finally, having initially flourished in real-life contexts, coaching is a cross-disciplinary area tapping into key areas such as coaching psychology, behavioural science, business and economic science, adult education and philosophy (Grant & Cavanagh, 2007; Lai & McDowall, 2014). Therefore, intervention design can be cross-fertilised with other relevant therapeutic, psychological, and behavioural interventions.

Seeing coaching as a socially complex intervention can have implications on research design, along with other contextual considerations. For instance, De Haan (2008) concludes, through his meta-analysis, that there is no significant difference between various psychotherapy and coaching methods, as contextual factors make the most significant contributions to intervention implementations and hence outcomes. Additionally, multiple definitions for coaching exist across the literature, implying different mechanisms and outcomes (Greif, Möller,

Scholl, Passmore, & Müller, 2022; Jarosz, 2016; Williams & Davis, 2007). Hence, given that coaching, as a complex social intervention, has various potential ingredients for success, the current evidence does not show what makes a coaching intervention work or not work. Also, current evidence does not focus on coaching as a causal process, with elements connected by cause and effect. Nevertheless, a relatively new form of synthesis, realist synthesis, can address these questions. In light of these characteristics, a realist methodology for this literature review was adopted through an iterative review process based on Pawson et al. (2005)'s key steps to explore CBC as a complex social intervention.

Review Rationale

A realist review approach, which is underpinned by a realist philosophy of science that focuses on causal processes, is suited to address this key gap in the literature and explore causal processes relating to complex social interventions (Pawson, 2006c), such as CBC. More specifically, realist reviews provide “an explanatory analysis aimed at discerning what works, for whom, in what circumstances, in what respects and how” (Pawson et al., 2005, p. 21). A realist review is ‘theory-driven’, meaning that it seeks explanations and refines them to capture better how a programme works effectively within a specific context. Prioritising a theoretical lens over focusing on outcome analysis, i.e. seeking to understand and measure outcomes, increases the chance of finding theoretical corroborations and thus, more likely, to detect the patterns by which mechanisms generate outcomes (Pawson & Manzano-Santaella, 2012).

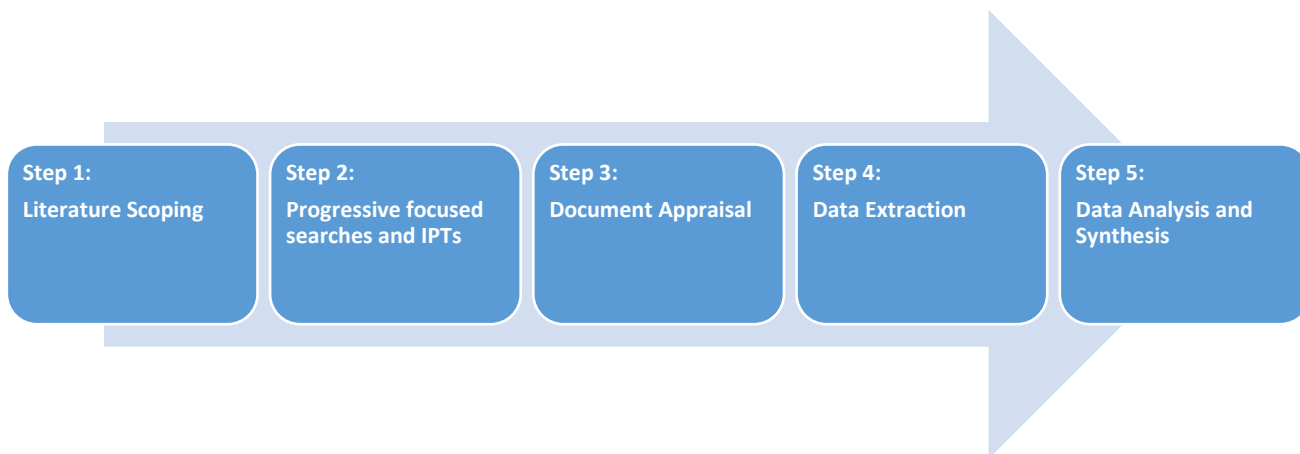
Realist review is a highly iterative review approach that focuses on realist causation (Pawson et al., 2005). Central to focusing on realist causation is a process of theory refinement and development, exploring deep generative mechanisms and underlying intervention theories (Shearn et al., 2017). The output of the review constitutes initial theories on how CBC interventions generate well-being related outcomes. These are referred to as programme theories. Realist methodology uses a context, mechanism and outcome (CMO) configuration as a theoretical framework and tool to uncover the causal processes of complex social interventions (Jagosh, 2019). Programme theories are then translated into CMOs to provide details on how CBC interventions are expected to produce results within workplace contexts (Wong et al., 2017). These provisional CMOs will influence the design of the empirical part of this research, in an attempt to refine these configurations further.

The realist approach is not without challenges, for example, it is promoted to be a non-novice approach as it requires discipline knowledge along with research skills to allocate and appraise evidence (Pawson et al., 2004). Realist approaches contain the intellectual challenge of attempting to track all the mechanisms of all the possible variations of one process. It also mandates pragmatic decisions regarding which mechanisms are selected and prioritised for further refinements throughout the review process. This intellectual challenge subjects realist researchers to the risk of self-professed theories, referring to the risk of researchers presenting their views without proper validation or rigorous evidence to support research claims (Pawson & Manzano-Santaella, 2012). It also incorporates some practical challenges, as it is inclusive and consequently time intensive. It allows the exploration and inclusion of evidence from various disciplines, hence the creation of practical limitations as time and funds usually direct when the review ceases (Pawson et al., 2005). Despite the intellectual and practical challenges, realist approaches hold the potential to help conceptualise coaching processes in an evidence-based framework to inform practice (Hewitt et al., 2014).

This review is registered on PROSPERO (ID: CRD42023407219). It is structured and presented according to a similar published realist review by Micklitz et al. (2021) on a different type of workplace well-being intervention. The review process starts with defining the review scope and moves across defining initial programme theories, searching for evidence, selecting, and appraising documents, extracting data, and analysing and synthesising data

to refine programme theories. Figure 2 outlines the process of completing a realist review adapted from (Pawson et al., 2005).

Figure 2: Realist Review Process as per Pawson et al. (2005)

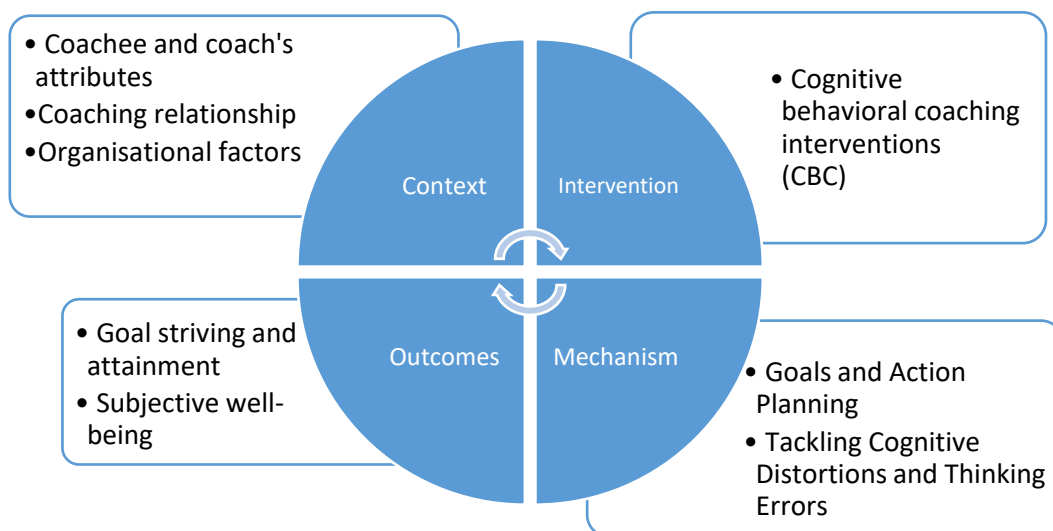


Step 1: Literature Scoping: Defining Review Scope and Scoping Searches

The full scope and key terminologies remained tentative at search inception, however, the review proceeded through several search iterations, using a blend of search types and approaches (Booth et al., 2018). This review included two main types of searches: a scoping search, to narrow down the review scope, and a progressive focussing search (Pawson et al., 2005). Although the presented steps might indicate a sequential search structure, the search steps were less linear, but more recurring and overlapping. At search commencement, the background scoping search was beneficial as it helped the reviewer become oriented with the quality and quantity of available literature, define review concepts as well as identify initial theories to set relevance criteria and review scope boundaries (Booth et al., 2018; Pawson, 2006c). The scoping search commenced with broad search terms such as “well-being,” “mental health” and “coaching” via “Google Scholar” and “One search” engines. To formulate a refined review question and define scope, the Context Intervention Mechanism Outcome (CIMO) structure, which resonates with the realist view of evidence-based practice, was used to draw out keywords (Booth et al., 2018). CIMO focuses on realist elements for data analysis (CMO), combined with a specified description of the intervention in study (I). Thus, it gave a clearer direction for the search strategy. Details of the CIMO framework are shown in Figure 3. This research attempts to explore a CBC intervention for enhancing goal attainment and perceptions of SWB in the workplace. Hence, the refined review question is,

Regarding CBC workplace interventions, what works, or does not? For whom? In what context and how?

Figure 3: Refined CIMO Framework and key realist definitions



Key Realist definitions

Programme Theory: The implicit or explicit explanatory theory that can be used to explain specific parts of programmes or interventions (Jagosh et al. 2014, p.4; Shearn et al., 2017)

Programme Strategy/Architecture: “The descriptive elements of the intervention (or programme) being studied” (Jagosh, 2023; Pawson & Manzano-Santaella, 2012). Example: conducting an awareness session.

Context: In realist methodology, it is “any condition that triggers and/or modifies the mechanisms” by which programmes operate to generate outcomes (Jagosh et al., 2014, p. 4).

Mechanisms: In realist methodology, a mechanism provides an explanation of how and why a programme generates specific outcomes. It represents “the generative force that leads to outcomes” (Jagosh et al., 2014, p. 5), and is activated within supportive conditions or contexts (Greenhalgh, Pawson, Wong, et al., 2017b).

These are divided into,

Resource Mechanisms: The components and underlying entities, processes and structures introduced by a programme in a context, i.e. the “combination of resources offered by the programme under study” (Dalkin et al., 2015, p.3). Example: two-way communication within awareness sessions.

Reasoning Mechanisms: The “stakeholders’ reasoning in response” to resource mechanism introduced within context that result in outcomes (Dalkin et al., 2015, p.3). Example: Feeling heard.

Outcomes: In realist methodology, outcomes represent aspects that change as a result of a programme; they “are either intended or unintended and can be proximal (immediate), intermediate, or final (distal or occurring on the long run)” (Jagosh et al., 2014, p. 5)

Context, mechanism, and outcome (CMO) configurations:

“A heuristic used to generate causative explanations pertaining to outcomes.” (Jagosh et al., 2014, p. 4),

“It is the basic causal explanatory framework for realist evaluation and realist reviews. Stated as a sentence, it means ‘In this context, this mechanism generates this outcome.’ (Greenhalgh et al., 2017a, p. 2)

Step 2: Progressive Focussed Literature Search and Initial Programme Theories

The focussed search stage began by collaborating with the faculty librarian, via a monthly meeting across five months. The aim was to construct a sensitive search to find articles that might not always explicitly mention the key terms in the title or abstract. Two search iterations using conventional search strategies were run across six databases (PsycArticles, PsycINFO, SocINDEX, ERIC, Medline, Academic Search Ultimate) to optimise coverage and significance. The detailed search strategy is outlined in Appendix 1. The first search iteration was set to explore evidence-based life coaching techniques and empirical methods. This included searches for relevant systematic literature reviews and meta-analyses. A supplementary CLUSTER methodology was used to spot evidence associated with key citations both directly and indirectly (Tsang & Maden, 2021). As per Tsang and Maden (2021), CLUSTER is designed to supplement complex reviews with contextual details for programme theory development. It can also be dissected and operationalised based on the type of evidence sought. In this review, four out of the possible seven clusters were used. Through employing the first CLUSTER element (C), Grant (2005), Neenan (2008a), Palmer and Szymanska (2008) and Wang et al. (2021) were identified as key citations for this review. Through employing the second (L) and fourth (S) CLUSTER elements, lead authors were identified, and scholar searches were conducted on key citations. The final CLUSTER element (T) was also used to track theory citations and identify conceptual factors that aided in programme theory development. Hence, adopting a supplementary cluster approach was beneficial as it compensated for poorly indexed databases in traditional searching, and aided in finding relevant but diverse resources across disciplines (Tsang & Maden, 2021).

The second search iteration in the focused search stage was targeted to gather evidence on CBC intervention outcomes. Working with the faculty librarian, the constructed search strategy was aimed at identifying articles linking CBC interventions with goal attainment, well-being, self-limiting beliefs, and self-defeating behaviours resulting from cognitive distortions. This process entailed a purposive sampling search to gather evidence in assessment of the defined theory (Pawson et al., 2005). Conclusively, in the focused search stage, the following propositional statement for the initial programme theory was identified in the form of an “IF-THEN-LEADING TO” statement (Punton et al., 2020).

“If employees undergo CBC, they learn to identify, challenge, and replace their negative automatic thoughts, cognitive distortions and self-limiting beliefs which lead to a more proactive mindset, facilitating goal attainment and enhancing well-being. These outcomes (goal attainment and well-being perceptions), especially those which are well-being related, are achieved through a psychological part of the intervention enhancing metacognition and the reactions to everyday work stressors (mechanisms), along with a practical action-based part of the intervention that focuses on proper goal setting, action planning, self-regulation, and feedback (mechanisms).”

The purpose of this research is reality checking, through developing provisional CMO configurations from the literature that help explain this theoretical underpinning and then refine them empirically (Pawson et al., 2005).

Steps 3 and 4: Document Appraisal and Data Extraction

Titles and abstracts were screened for an initial assessment of relevance, followed by full-text screening when a decision on relevance could not be reached from titles and abstracts. In cases where it was difficult to make a definitive selection decision, discussions with the research supervisors took place to guide the decision-making process. Some articles were not fully included, but partial sections were considered based on relevance (Pawson, 2006a; Pawson et al., 2005).

In compliance with RAMESES and realist guidelines, the documents were appraised on their fitness for review purpose. Thus, articles were appraised on relevance, rigour and richness (Dada et al., 2023; Wong et al., 2015). Upon reading the full texts, assessments of relevance were made based on the reviewer's judgment on whether the resource contributed to the programme theory testing and refinement. Those criteria focused on the article's relevance to the purpose of refining, refuting, or confirming programme theory for this review. As with the concept of inclusion and exclusion criteria in traditional reviews, realist reviews rely on the relevance construct to draw some pragmatic borders to document selection. Assessment of rigour was made in reference to the article's explanatory power for the developed programme theory and if it generated credible, plausible, and trustworthy data. For books and some articles, such as Grant (2015), Minzlaff (2019), assessment of rigour was made on specific sections of the articles relevant to the review (as opposed to the whole paper). Additionally, in reference to the article by Dada et al. (2023), the construct of richness was also considered to assess if the included research provided sufficient details on the context and the concepts being researched. Table 2 shows how the three constructs were questioned and subjectively rated. None of the articles was included or excluded based on these evaluative judgments; instead, evaluations were used to inform the analysis and synthesis process of the review.

At this stage, articles were selected based on preliminary relevance criteria that were further scrutinised iteratively as selection decisions were being made by the reviewer. Table 3 shows the list of modified criteria as per the established review CIMO framework. Appendix 2 presents a sample of the articles appraised.

Construct	Question	Rating Scale			
Relevance	How relevant is the article to the purpose of refining, refuting, or confirming programme theory for this review?	High	Moderate	Low	-
Rigour	Is the article good enough? Does it generate credible, plausible, and trustworthy data?	High	Moderate	Low	N/A
Richness	Is the article adequate and coherent? Does it provide sufficient contextual details?	High	Moderate	Low	N/A

Table 2: Appraisal Criteria (Data et al., 2023; Wong et al., 2015)

	Relevance Criteria	Implications
C	This review focuses on personal organisational coaching in the workplace context.	Thus, other types of coaching were not considered. For instance <ol style="list-style-type: none"> 1. Sports-related coaching, 2. Health and relationship coaching, 3. Family/parental coaching focusing on parental role enhancement 4. Instructional coaching focusing on school improvement and teacher’s instructional skills enhancement.
	Coaching for employees	Thus, coaching for unemployed adults was not considered. For instance, research focusing on children, students, adolescents, and seniors was considered irrelevant.
I	Coaching Interventions (Specifically CBC)	Thus, non-coaching interventions were considered irrelevant. Interventions that do not meet the coaching interventions definitions were excluded. Ex: Mentoring, counselling, training ... etc. Also, Self-coaching was irrelevant as this review was looking into coaching as a dialectic process.
M	Coaching by Professional Coaches	Thus, coaching by non-coaches/professionals was not considered. Ex: managerial coaching, nurses, teachers, peers ... etc.
O	Well-being related Outcomes	All outcomes were considered during the review. Articles with a specific focus on SWB or goal attainment were given higher scores on relevance.

Table 3: Relevance Criteria

Data from the articles were extracted using NVivo (1.7.1). Data extraction commenced by deductively creating a set of codes inspired by a data extraction tool adopted from Brown et al. (2021) and adapted to reflect this review’s initial programme theories (appendix 3). The data extraction form was only used to provide a skeleton to guide the initial coding and categorisation of data. During the extraction process, new codes were added inductively as new data emerged to refine programme theory. Different types of evidence informed different parts of theory. Book chapters and qualitative studies were coded first due to their provision of rich information about the intervention mechanisms and participant experiences. These were followed by mixed methods studies and concluded by coding quantitative studies. Quantitative studies mostly informed the outcomes elements of the intervention. Searching ceased when theoretical saturation was reached, meaning “sufficient evidence was found such that it is reasonable to claim that the theory is coherent and plausible” (Wong, Westhorp, et al., 2013, p. 191). Theoretical saturation was reached when no new codes were created, and new data were no longer adding to the programme theory refinement exercise. NVivo memos were kept to assist in data linking and finalising CMO configurations. Evidence informing programme design was prioritised to assist with developing the coaching programme to be tested in the second research phase.

Step 5: Analysis and Synthesis Process

Analysis and synthesis were done iteratively with the coding process in NVivo following the method presented by Dalkin et al. (2021). All coded pieces with explanatory power were highlighted, adding annotations to document causal processes detected. Annotations and primary codes were then arranged into C, M, O categories and grouped to build the CMO configurations (CMOs). Each CMO was then created as a code and a memo in NVivo to assign references and capture thoughts towards its refinement. Following the realist synthesis conceptual tools, annotations and memos captured thoughts about situating mechanisms, juxtaposing data across documents to generate outcome patterns, consolidating outcomes and reconciling differences to explain contradictory outcomes and resolve them based on previously conducted appraisals (Wong, Westhorp, et al., 2013). The process of CMO testing and refinement was completed by iteratively moving between annotations, references and programme theories until all articles were considered. The process ended when no further refinements to existing CMOs occurred from remaining data and no new CMOs were being created. The final CMOs are presented and discussed in the section below. Examples of analysis and code configuration is presented in Appendix 15.

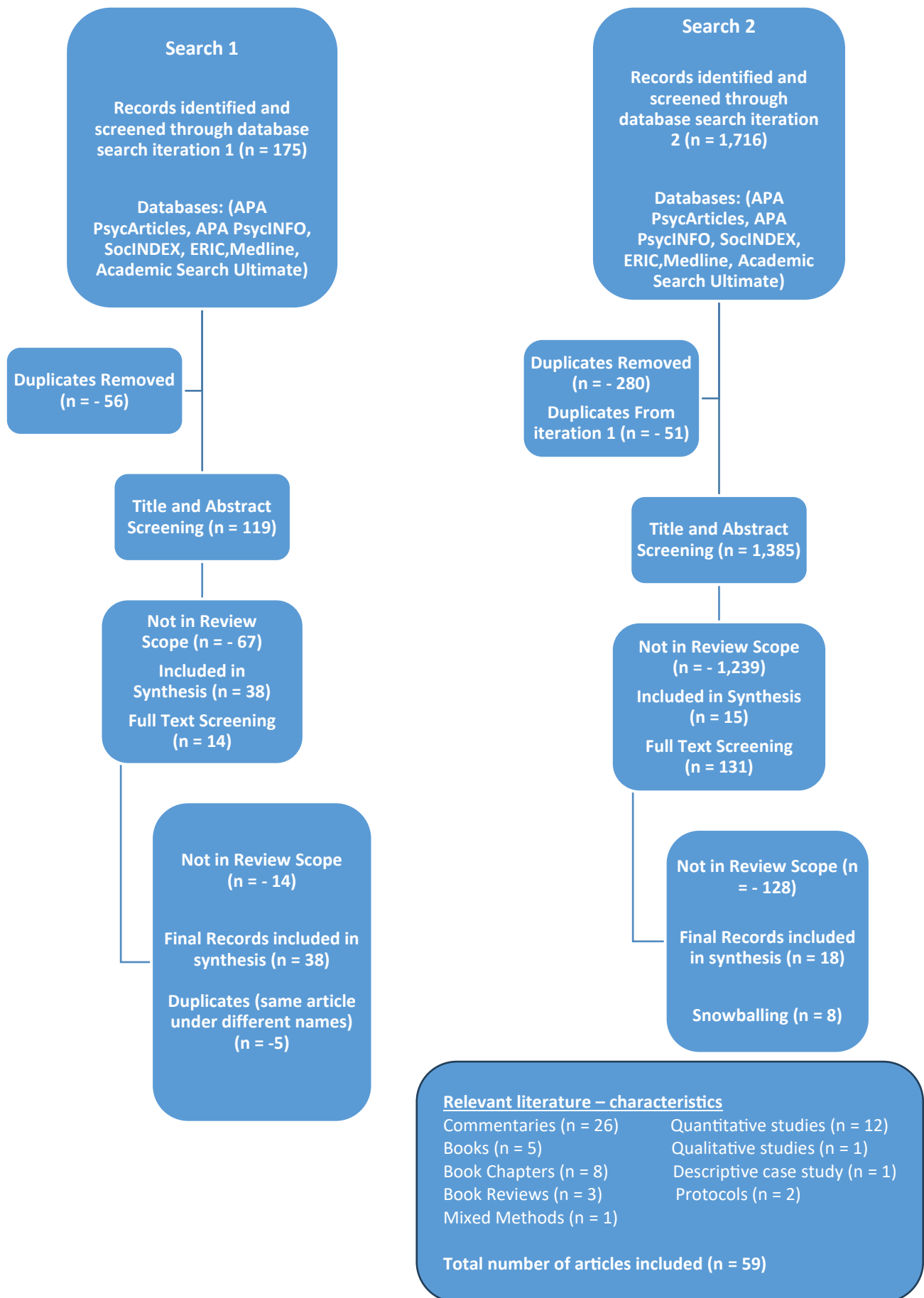
Review Findings

To highlight in detail the causal processes within the CMO framework, the CMOs were configured in reference to the approach by Dalkin et al. (2015) who distinguished between the resource and reasoning elements of mechanisms. The presented CMO configurations reflect the resource mechanisms (R) activated when introduced in suitable contexts (C). Resources can then trigger the reasoning mechanisms (RM) on the coachee's behalf and generate proximal outcomes (O), in the short term as a direct output from the programme, and distal outcomes (DO) that might take longer to manifest after the programme (Jagosh et al., 2014). Figure 5 summarises the configured CMOs.

Study and Sources Characteristics

Realist reviews are known to be inclusive of a broad range of evidence including various study designs, commentaries and grey literature (Duddy & Roberts, 2022). A total of 64 relevant articles were initially identified for review. Five articles were found to be duplicates across iterations and removed. Data were then extracted and coded from 59 articles. Coded literature included 26 commentaries from key authors which did not include empirical evidence, six of which lacked relevant causal insights to contribute to any of the initial programme theories. Additionally, eight book chapters, three book reviews of included books, 12 quantitative studies, two protocols (studies not published), one qualitative study, one mixed methods study, five books, and a descriptive case study were coded. Figure 4 presents the search flow chart.

Figure 4: Search Flow Chart



Overview of Reported Outcomes

A total of 59 articles were reviewed for the production of this review, listed in Appendix 4. Out of the reviewed articles, 44 were theoretical papers and did not include empirical evidence. In this type of literature, information about CBC theories, concepts, techniques, and frameworks was prevalent. Common examples of CBC tools found in the theoretical papers included - but were not limited to - the ABCDE model (Gavriel, 2016; Neenan, 2008a; Palmer, 2009b; Palmer & Gyllensten, 2008; Willson, 2021), Socratic questioning (Neenan, 2012; Palmer & Szymanska, 2008), PRACTICE model (Hultgren et al., 2013; Palmer & Gyllensten, 2008; Palmer & Williams, 2013), SPACE model (Ogba et al., 2020; Palmer & Gyllensten, 2008), CRAIC framework (O'Donovan, 2009), deserted island technique (Palmer, 2009a), performance/well-being matrix (Grant, 2017a), and the Problem-Reality-Action Model (Yalçön, 2016).

The remaining 15 articles, researching non-clinical populations, had an empirical element, 12 of which were quantitative. Studies mostly reported significant improvements after the application of CBC, in metacognitive awareness (Beddoes-Jones & Miller, 2007; Grant, 2003; Gyllensten et al., 2010), well-being (Hultgren et al., 2016; Jones et al., 2021; Lungu et al., 2021), goal striving and attainment (Hultgren et al., 2016; Spence et al., 2008), hope (Green et al., 2006), self-determined motivations (Jones et al., 2021), quality of life and work performance (David & Cobeanu, 2016). Other studies reported significant reductions in stress (Gardiner et al., 2013; Ogba et al., 2020), decisional and behavioural procrastination (Karas & Spada, 2009), perfectionism, self-handicapping (Kearns et al., 2007) and maladaptive cognitions (David & Cobeanu, 2016). While the validity of these outcomes could be subject to methodological critiques, the focus of this review is on the proposed mechanisms for these effects.

In this review, various forms of evidence were used to inform different elements of the CMOs including non-empirical and empirical evidence. Non-empirical evidence, such as books, commentaries and theoretical articles, were primarily used to inform the mechanisms and the resources introduced by CBC interventions. The non-empirical literature facilitated our understanding of CBC techniques, helping to articulate the mechanisms through which the intervention was intended to work. The empirical evidence was used to understand further the various outcomes of CBC interventions across different contexts. This empirical literature provided insights into how CBC operates in the real-world, allowing us to explore links between mechanisms and outcomes. By integrating both types of evidence this review was able to develop CMOs reflecting a theory of how CBC can work in organisational contexts. Appendix 15 contains a sample of the analysis done to reflect the contribution of empirical and non-empirical evidence for one of the CMOs.

Nevertheless, relevant to the articles' appraisals, four main points were problematic. Firstly, small sample sizes were frequently reported across the studies, which might not adequately represent the population as explicitly reported by seven studies. Additionally, three studies reported risks of statistical deviations and bias towards false positives. Also, only four quantitative studies included a control group, and only one explicitly identified as a randomised control trial, which posits major limitations to the rigour of the reported findings for the rest of the studies. Further, four of the studies conducted non-coaching related interventions despite referencing CBC; these interventions included workshops, coaching training, and postgraduate courses. These were rendered less relevant

to the review and only relevant sections of the articles were included in the analysis. Finally, one article used mixed methods, one was a qualitative study, one was a descriptive case study and two presented study protocols without presenting the findings¹. Table 4 presents a summary of the study type, intervention description and duration of relevant empirical studies. A comprehensive list of all included literature pertinent to this review is provided in Appendix 4.

¹ Attempts were made to contact the protocol authors by the time of dissemination, but no further information was provided.

Empirical References	Study Type & Number of Participants	Participants Settings	Intervention Description	Coaching Duration & Delivery Mode
1. Grant (2003)	Within-subjects pre-post study n = 20	Postgraduate students	Group CBC coaching sessions	50 minutes – 10 weekly sessions
2. Green et al. (2006)	Experimental between-subjects design Coaching group n = 18 Waitlist control group n = 28	Undefined	Cognitive-behavioural, solution-focused life coaching group programme.	Full day workshop + 60 minutes – 9 weekly group meetings
3. Beddoes-Jones and Miller (2007)	Mixed Methods Case study n = 8	Managerial & leadership positions in banking, private sector consultancy, further education and public utilities	Short-term executive cognitive behavioural coaching intervention	60 minutes – 4 phone coaching sessions
4. Kearns et al. (2007)	Quasi-experimental study pre-post design n = 28	High degree students	Intensive CBC workshop series.	2.5 hours introduction workshop 2 hours – 5 workshops weekly 1 hour – 1 follow-up workshop
5. Spence et al. (2008)	Crossover design, MT-CB Group n = 14 CB-MT Group n = 15 Health education seminars Group n = 13	Undefined	Mindfulness training MT and cognitive-behavioural, solution-focused (CB-SF) coaching	Goal Setting Workshop + four weeks of MT four weeks of one-on-one coaching (using a blend of face-to-face and telephone-based instruction or coaching)
6. Karas and Spada (2009)	A case series employed an A-B direct replication across participants design with follow-up n = 7	Undefined	Brief cognitive-behavioural coaching programme for procrastination.	60 minutes – 5 weekly session

7. Gyllensten et al. (2010)	Qualitative Study – semi structured interviews n = 10	Managerial positions in a private company, a government body and a school	Cognitive coaching/CBC	Sessions varied in Length from 4 to 15 sessions
8. Gardiner et al. (2013)	Quasi-experimental study Intervention group n = 69 Baseline group n = 205 Control group n = 312	Rural GPs	Cognitive behavioural coaching - both group and individual coaching	Eight coaching workshops were conducted over a 3-year period. No information given on sessions
9. David and Cobeanu (2016)	Pre- to post-training comparisons online survey n = 102	Work or Study in a psychology connected domain (e.g. Departments of HR, educational institutions and private practice)	Post-graduate course in coaching.	Training Programme in CBC
10. David et al. (2016)	Pre-post design n = 59	Middle managers in an Italian multinational banking group	Coaching workshop and cognitive-behavioural executive coaching session.	5 hours workshop + 1 – phone coaching session (duration unspecified)
11. Hultgren et al. (2016)	Pilot Study Pre-post online questionnaires n = 9	Managerial and admin employees within health and safety and health organisations	Virtual coaching programme using cognitive behavioural coaching (CBC) model – Self-coaching.	6-week coaching
12. Bristol-Faulhammer (2017)	Descriptive Case Study n = 6	Adults in professional transitions (i.e. finding a new career)	Value Coaching – targeting cognitive and emotional engagement	8 weeks
13. Ogba et al. (2020)	A randomized wait-list control trial design with pretest, post-test and follow-up assessments Intervention group n = 33 Waitlist Group n = 32	School administrators from secondary schools in south Nigeria	Group SPACE-CBC model training program.	90 minutes – 12 weekly sessions
14. Jones et al. (2021)	Quasi-experimental study between and within-subjects pre-post design Experimental group n = 24 Control group n = 26	UK country police organisation	One-to-one CBC sessions	60 minutes – 8 Sessions over 12 weeks

15. Lungu et al. (2021)	Quasi-experimental study – using retrospective data on n = 289 subjects	Employees or dependants of companies partnering with a health organisation delivering coaching services	Structured, cognitive behavioural coaching (CBC) programme delivered through video or telephone.	45 minutes – 6 virtual sessions
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Table 4: Included studies reported intervention descriptions and coaching durations.

Main Findings

Contextual Factors

This section discusses the necessary contextual factors identified during this review to trigger CBC mechanisms and realise outcomes. Discussion of the contextual factors is grouped in this section as they are mostly discussed in the literature as general prerequisites to successful coaching. This is following Jagosh (2023a) advice to avoid forcing the context if it does not swiftly emerge from the data. Although there was insufficient evidence to configure each identified context element to specific mechanisms and outcomes, attempts were made while relying on the researcher’s practical experience as permitted in realist research. Realist research recognises the nuanced understandings and practical insights of researchers having first-hand experience with the context (Pawson, 2006b; Wong, Westhorp, et al., 2013). The contextual factors are presented alongside the provisional CMOs in Figure 5 (see below).

These contextual factors are divided into four groupings related to the coachee attributes, organisational factors, coach qualifications and coaching alliance. In the first category, two necessary coachee attributes are identified. The first attribute is the coachee’s ability and willingness to engage in reflection (Neenan, 2008a) or, as termed by Michalos (2014, p. 403), introspection (C1), which is the skill of practising “inner silence with self-observation” in examining one’s thoughts and emotions. The absence of reflective ability can hinder the coaching efforts in generating self-awareness on the coachee’s behalf and hence hinder the process of identifying problematic thinking. The second attribute is a coachee’s readiness and motivation to change (C2), according to Minzlaff (2019) CB approaches are primarily chosen to assist those who are actively seeking help.

This intersects with the second category describing organisational factors that can impact outcomes. Anstiss and Passmore (2012) propose the term ‘controlled motivation’ to describe the external pressures that organisations put on employees to engage in coaching interventions, which is also likely to be met with resistance on the coachee’s behalf. Hence, an important contextual factor to consider is how the organisations are presenting and communicating (C3) coaching interventions to their employees to avoid evoking resistance. In their realist review looking into programmes to enhance well-being at work, Micklitz et al. (2021) support that employees are more open to taking part in programmes promoted under the umbrella of professional development and more reluctant to engage with mental health programmes, especially in cultures where mental health issues are

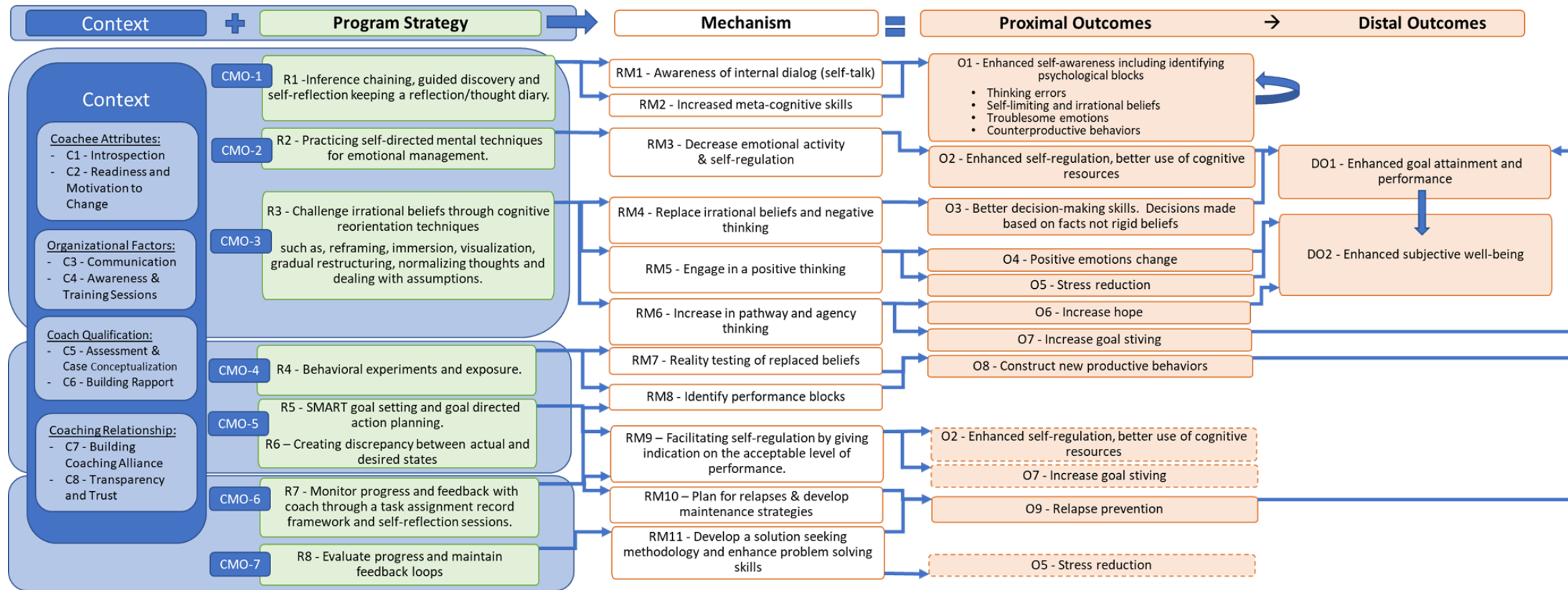
stigmatised and seen as evidence of weakness. Active communication can be established via awareness sessions (C4), or sometimes training, presenting the main techniques of CB approaches to help the coachees adjust expectations, understand the process and thus make execution easier (Green et al., 2006; Neenan, 2008a).

The third category of contextual factors entails the coach's qualifications. Typically, CBC interventions focus on each coachee's specific individual issue with the aim of devising specific agreed strategies and actions to tackle this issue (Kearns et al., 2007). Thus, the coach's ability to assess and conceptualise each individual case (C5) is crucial in customising the coaching experience to generate beneficial outcomes as per each coachee's need (Breitmeyer, 2016). The coach also needs to know how to build rapport (C6) with his/her coachee to address potential resistance to participating in coaching in the workplace or engaging in personal or non-work related conversations. This intersects with the final category of the contextual factors, the coaching relationship. Wang et al. (2021) highlight coaching alliance (C7) as the main antecedent to coaching outcomes. Additionally, O'Broin and Palmer (2009) characterise an effective coaching alliance as both parties' agreement to collaborate on goals, tasks and sharing views on how the coachee's issue will be addressed. They quote Stober and Grant (2006, p. 361) on the importance of "jointly designing the dynamics of the working alliance" through open discussion and agreement. This agreement creates transparency in the relationship which aids the trust-building process (C8).

Provisional CMO Configurations

Figure 6 and Table 5 present the configured CMOs. Each CMO is further described in this section along with corresponding evidence from the literature.

Figure 5: Context – Mechanism – Outcome Configurations



#	Provisional CMO Description
1	<p>CMO 1 - When coachees, who are self-reflective (C1) as well as ready and motivated for change (C2), engage in CBC conversations and exercises such as keeping a thought diary for self-reflection, inference chaining and guided discovery (R1), it enhances their awareness of their internal dialogue and self-talk (RM1), increasing their meta-cognitive skills (RM2). This helps employees identify psychological blocks (O1) such as thinking biases, self-limiting and irrational beliefs, that lead to troublesome emotions and counter-productive behaviours.</p> <p>(Breitmeyer, 2016; Bristol-Faulhammer, 2017; Carvalho et al., 2018; Collard & McMahon, 2012; David & Cobeanu, 2016; Dias et al., 2017; Gavriel, 2016; Gottschalk et al., 2019; Grant, 2003; Gyllensten et al., 2010; Hultgren et al., 2013; Jones et al., 2021; Kearns et al., 2007; Kemp, 2008; Lai, 2011; Lungu et al., 2021; McMahon, 2007; Minzlaff, 2019; Neenan, 2008a, 2012, 2018; Neenan & Palmer, 2006; O'Broin & Palmer, 2009; O'Donovan, 2009; Ogba et al., 2020; Palmer, 2009b; Palmer & Edgerton, 2005; Palmer & Szymanska, 2008; Palmer & Williams, 2012, 2013; Spence et al., 2008; Van Dyke, 2013; Wang et al., 2021; Williams et al., 2010; Willson, 2021; Yalçõn, 2016).</p>
2	<p>CMO 2 - When coachees, who are self-reflective (C1) as well as ready and motivated for change (C2), practise self-directed mental techniques for emotional management (R2) in CBC coaching sessions, it helps them learn how to reduce their emotional reactivity (RM3), thus enhancing self-regulation (O2) accordingly. This allows better use of cognitive resources for goal attainment.</p> <p>(Beddoes-Jones & Miller, 2007; Carvalho et al., 2018; Collard & McMahon, 2012; Gavriel, 2016; Gottschalk et al., 2019; Grant, 2003, 2015; Gyllensten et al., 2010; Jones et al., 2021; Lungu et al., 2021; Minzlaff, 2019; Neenan, 2018; O'Donovan, 2009; Palmer, 2009a; Palmer & Szymanska, 2008; Spence et al., 2008; Wallace, 2008; Wang et al., 2021; Willson, 2021).</p>
3	<p>CMO3 - When coachees who identified their thinking biases and irrational beliefs (R) challenge those irrational beliefs through cognitive re-orientation techniques (R3), such as reframing, immersion, visualisation, gradual restructuring, checking for assumptions and dealing with inaccuracies and normalising thoughts, they can replace their limiting beliefs and negative thinking patterns (RM4) and engage in more positive thinking (RM5), as well as pathway and agency thinking (RM6). This leads to better decisions (O3) that are based on facts rather than rigid beliefs, positive emotional change (O4), reduced stress (O5), increased hope (O6) and goal striving (O7). Thus, coachees can enhance their well-being (DO2) and goal attainment (DO1) accordingly.</p> <p>(Bristol-Faulhammer, 2017; Carvalho et al., 2018; Collard & McMahon, 2012; David, 2016; David & Cobeanu, 2016; Dias et al., 2017; Dinos & Palmer, 2015; Gardiner et al., 2013; Gavriel, 2016; Gottschalk et al., 2019; Grant, 2003; Green et al., 2006; Gyllensten et al., 2010; Jones et al., 2021; Kearns et al., 2007; Lungu et al., 2021; Minzlaff, 2019; Neenan, 2018; Neenan & Palmer, 2006; O'Donovan, 2009; Ogba et al., 2020; Palmer, 2009a, 2009b; Palmer & Szymanska, 2008; Palmer & Williams, 2012, 2013; Wallace, 2008; Wang et al., 2021; Yalçõn, 2016).</p>
4	<p>CMO4 - During CBC, coachees are exposed to behavioural experiments (R4), gaining experience in reality testing of replaced beliefs (RM7), so they are then able to identify performance blocks and counterproductive behaviours (RM8), which allows them to construct new strategies and productive behaviours (O8).</p>

5	<p>CMO5 - During CBC, coachees are exposed to goal setting and goal-directed action planning (R5), which creates a discrepancy between the actual and desired state (R6). This discrepancy facilitates self-regulation (RM9), leading to enhanced goal striving (O7) and goal attainment accordingly (DO2)</p> <p>(Carvalho et al., 2018; Collard & McMahon, 2012; David & Cobeanu, 2016; Dias et al., 2017; Gardiner et al., 2013; Gottschalk et al., 2019; Grant, 2003, 2017a; Gyllensten et al., 2010; Hultgren et al., 2013; Jones et al., 2021; Karas & Spada, 2009; Kearns et al., 2007; Latham & Locke, 1991; Lungu et al., 2021; Minzlaff, 2019; Neenan, 2012, 2018; Palmer, 2009a; Palmer & Williams, 2012; Spence et al., 2008; Wallace, 2008; Wang et al., 2021; Williams et al., 2010; Willson, 2021; Yalçõn, 2016).</p>
6	<p>CMO 6 - When employees engage in monitoring their progress and feedback exercises (R7) with their coach (through tools such as task assignment record homework and self-reflection within the session), it assists in identifying performance blocks (RM8), facilitating self-regulation (RM9) as well as developing maintenance strategies (RM10) that ensure continuity and prevent potential setbacks (O9). This not only ensures the continuity of goal attainment but also enhances performance accordingly (DO1)</p> <p>(Carvalho et al., 2018; David & Cobeanu, 2016; Dias et al., 2017; Gardiner et al., 2013; Grant, 2003, 2017a; Green et al., 2006; Hultgren et al., 2016; Jones et al., 2021; Latham & Locke, 1991; Locke & Latham, 2006; Neenan, 2008a; O'Broin & Palmer, 2009; O'Donovan, 2009; Palmer & Williams, 2013; Spence et al., 2008; Wallace, 2008; Wang et al., 2021; Willson, 2021; Yalçõn, 2016).</p>
7	<p>CMO 7 - When coachees engage in evaluating their progress and maintain a feedback loop (R8) with their coach, they develop solution-seeking methodologies and gain problem-solving skills (RM11), which on one side prevent relapses (returning to unhelpful thinking patterns) (O9) and ensure continuity of goal attainment (DO1), and on the other side reduces stress (O5), as well as enhances well-being (DO2)</p> <p>(Carvalho et al., 2018; Collard & McMahon, 2012; Gardiner et al., 2013; Gottschalk et al., 2019; Grant, 2003; Gyllensten et al., 2010; Jones et al., 2021; Latham & Locke, 1991; Locke & Latham, 2006; Lungu et al., 2021; O'Donovan, 2009; Ogba et al., 2020; Spence et al., 2008; Wang et al., 2021; Yalçõn, 2016).</p>

Table 5: Review Findings: Context – Mechanism – Outcomes Configurations

CMO 1 and 2: Coaching conversations for exploration

The first two CMOs concern the development of personal individual skills and readiness for the change necessary to engage with CBC conversations. These conversations are aimed at cultivating coachees' psychological skills in an attempt to address existing maladaptive thinking patterns to moderate their impact on behaviour and emotions.

Definitional issues are endemic in this area, however, one definition of metacognition is thinking about thinking and it describes the awareness and understanding of one's thought process (Brewin, 2006). Metacognition allows the cultivation of thinking skills in terms of the ability to observe thoughts without passing judgement. Thoughts are manifested in one's internal dialogue, which, according to Palmer and Williams (2013), represents the inner critical voice that tends to promote caution and self-doubt and may have an adverse impact on views of the self over time if not rationalised. The process of self-reflection and thought observation subsequently allows individuals to test logically the validity and utility of their thoughts and their impact on their emotions and behaviours (Neenan, 2008a). Thus, elevated self-awareness (RM1) and meta-cognitive skills (RM2) might be primarily useful to lead the coachee to identify their problematic thoughts and emotions (O1), enhance their self-directed learning, as well as impose a more balanced and adaptive way of thinking, leading to better decision making (O3) and problem-solving capabilities (Beddoes-Jones & Miller, 2007). CBC exercises, including keeping a thought diary for self-reflection (R1) and participating in guided discovery coaching conversations and inference chaining questioning activities, are designed to increase metacognitive skills (RM2) and self-awareness (RM1), thus, identifying psychological blocks (O1) (Minzlaff, 2019; Neenan & Dryden, 2013). These psychological blocks manifest in thinking biases, i.e., self-limiting and irrational beliefs that lead to problematic emotions and behaviours. This is regarded as the first stage in CBC, given that in reference to cognitive theory, CB approaches promote that "the route to emotional change is cognitive change", more specifically by altering thinking (Neenan, 2008a, p. 4).

Additionally, CBC exercises are guided by the ABCDE model which highlights that any activating event (A) does not directly determine our cognitive, behavioural, and emotional reactions, but our beliefs (B) direct our responses as a consequence (C). Thus, by disputing and challenging these beliefs (D), one can acquire a new effective outlook on external events (E) (Neenan, 2008a; Palmer & Szymanska, 2008; Palmer & Williams, 2013). Primarily, the coach attempts to identify the coachee's objective explanation of the troublesome situation under investigation. This objective view is labelled 'Situational A.' By asking the coachee a series of assumption-driven questions, the coach can pinpoint the coachee's subjective views and significant inferences to identify the most problematic aspect of the situation to the coachee. This subjective view is labelled 'Critical A.' This process of questioning is

referred to as inference chaining (R1) (Neenan & Dryden, 2013). Another technique used to elicit the 'critical A' is guided discovery (R1), which is based on Socratic questioning (Minzlaff, 2019). 'Critical A' usually represents the coachee's rigid, irrational belief. By revealing the discrepancies between Situational and Critical A, the coach may direct the coachee's attention to the adverse emotional, physical, and cognitive impact of the coachee's rigid irrational belief.

The second CMO concerns self-directed mental techniques. Specifics of self-directed mental techniques (R2) were not explicitly discussed in the included literature, however, these refer to exercises taught to the coachee to control his/her attention and reduce emotional reactivity (RM3) (Minzlaff, 2019). Gyllensten et al. (2010) gives psychoeducation and relaxation exercises as examples. The practice of such techniques allows the coachee to understand their emotional state to be able to reason with oneself. Palmer (2009a) adds that such clarity does not deny the coachee the experience of having negative emotions but helps them replace unhelpful negative mood states, such as depression, or emotions, such as guilt and anger, with more helpful ones such as sadness and annoyance. This facilitates the coachee's emotional handling and self-regulation (O2) which allows them to use their cognitive resources better to attain goals and enhance performance (DO1).

CMO 3: Coaching conversations for cognitive re-orientation

This CMO presents the development of coaching conversations beyond exploration and upon identification of psychological blocks. It outlines using cognitive techniques to re-orient coachees' maladaptive thought processes and promote the adoption of positive and productive thinking. This process then completes the cognitive preparation needed for the coachee to engage with designated goals via the behavioural route of coaching.

As irrational beliefs and thinking biases are identified, coachees may challenge those irrational beliefs with the coach's guidance, using cognitive re-orientation techniques (R3). This includes reframing one's perspective based on rational evidence, as well as coupling irrational beliefs with performance and well-being issues, to justify to the coachee why the identified beliefs are problematic. Cognitive re-orientation techniques also include visualisation exercises and exposing the coachee to challenging situations, to ground new perspectives with new real-life evidence. During the process of challenging irrational beliefs, coaches check for assumptions and deal with inaccuracies to normalise thoughts and gradually restructure those beliefs (David, 2016; Kearns et al., 2007; Minzlaff, 2019; Palmer & Williams, 2013). Consequently, coachees may be able to replace their irrational beliefs and negative thinking (RM4).

As employees replace their thinking biases, negative thinking, and self-limiting beliefs (RM4) with effective positive beliefs, they engage in positive thinking (RM5) in terms of searching for

constructive ways to cope with difficulties. This is referred to as the 'new effective outlook' in the ABCDE model and is characterised by being constructive, adaptive, balanced, and self-enhancing. This engagement perhaps causes positive emotion change (O4) and stress reduction (O5), which directly enhances well-being (David, 2016; Minzlaff, 2019; Neenan, 2008a; Palmer & Williams, 2013). Additionally, stress might also be addressed directly within coaching conversations, through treating internal perceptual stressors or perceptions of external stressors as negative thinking patterns to be challenged and replaced. Moreover, as self-limiting beliefs are replaced (RM4), employees might be more able to make decisions rationally (O3). Rational decisions are based on facts, not rigid beliefs, thus enhance one's decision-making skills (David, 2016; Minzlaff, 2019). Another possible implication of engaging in positive thinking is an increase in pathway and agency thinking (RM6), leading to increase in hope (O7) and goal striving (O7) which can positively impact goal attainment and performance accordingly (Grant, 2017a; Green et al., 2006; Hultgren et al., 2016). This CMO is coded in reference to hope theory (Green et al., 2006; Snyder, 2002), which assumes that individual behaviour and actions are goal-directed. It also assumes that the positive thinking context entails pathway thinking, perceiving several routes to reach a certain goal, as well as agency thoughts, i.e. perceiving one is capable to pursue the available routes to successful goal attainment. These thinking patterns in conjunction increase one's level of hope.

CMO 4 and 5: Behavioural experiments and goal setting

Both CMO 4 and 5 introduce the behavioural element of the cognitive behavioural approach. CMO 4 outlines taking the newly earned thought processes to be tested and validated in the real world through designing behavioural experiments. CMO 5 links this cognitive re-orientation process to the coachee's journey of self-development by setting valuable goals for the coachee to attain. This goal attainment is regarded as the ultimate goal of the coaching process.

Most coaches with counselling backgrounds tend to focus solely on the cognitive aspect of the coaching intervention (Neenan, 2008a). However, given that enhancing goal attainment and performance is at the heart of the coaching practice, neglecting the practical side of coaching will not yield the desired behavioural change, and might result in a poor coaching relationship (Index, 2010). Hence, tackling psychological blocks is not enough to drive change; indeed, following that with a practical action plan is crucial to achieving coaching goals and a coachee's satisfaction with progress. Throughout the CBC process, thoughts are considered as hypotheses to be verified. Upon replacement of irrational beliefs (RM4), the coach assists the coachee in carrying out experiments (R4) to validate their thoughts (RM7) and generate positive ideas that lead to positive behavioural adjustments. Experimentation is deemed useful to test the appearance of counterproductive behaviours and performance blocks (RM8) and construct new productive behaviours (O8). Additionally, the coach and

coachee work on goal setting and goal-directed action planning (R4), which can directly enhance goal attainment (Green et al., 2006; Hultgren et al., 2016). This is coded in reference to goal theory (Locke & Latham, 2006), which proposes that generally goals motivate action, as they create a discrepancy between the actual and desired performance. For goal attainment (DO1), goals need to be identified in a specific, measurable, achievable, relevant, and time-bound (SMART) format. Secondly, developing goal-directed action plans is crucial for goal attainment, meaning the deconstruction of goals into achievable action items to be monitored and further evaluated.

CMO 6 and 7: Progress Monitoring, Feedback and Evaluation

The final two CMOs concern the coaching efforts made during goal progression. Once the coachee commences working on their designated goals, coaching conversations are directed towards periodic follow-ups to support achieving the coachee's goals.

CMO 6 concerns a coachee's progress monitoring. Participants report back to the coach with progress on the agreed-upon goals (R6) and this helps the coachee monitor, maintain (RM10), or adjust their performance (DO1) continuously. This ensures continuity of performance and prevention of returning to unhelpful thinking patterns (O9), as potential relapses are prepared for with coping mechanisms during the session. However, attention to how feedback is given is important as constant positive feedback is argued to have the potential to decrease motivation and performance as it can reduce its perceived value, foster a sense of complacency and entitlement and impact intrinsic motivation (Goller & Späth, 2023). In compliance with goal theory (Latham & Locke, 1991; Locke & Latham, 2006), it is important for coaching feedback to be given constructively in the form of improvement goals based on information from monitored past performance. It is expected that bringing a goal, defined as a specific target and its evaluation standard, together with feedback, defined as the degree to which this standard was met during past performance, might lead to better goal striving and motivation for performance. The process of monitoring and feedback also facilitates self-regulation. Self-regulation in this context translates into improvement in goal striving, self-monitoring (apart from the coach) and self-rewarding and punishing (Locke & Latham, 2006).

Further, the evaluation aspect of this process, coded in CMO 7, incorporates self-evaluation and progress evaluation. The coach attempts to broaden the person's scheme of self-evaluation to avoid self-worth diminishing. The coach also attempts to review issues to performance and help coachees identify strategies to tackle such obstacles in the future; this is done by filling out a task assignment record. Using these records, the tasks are reviewed at the start of every session to remove impediments to goal achievements and ensure progress. Additionally, the feedback loops also feed into the cognitive processes nurtured within the coaching process. Thus, when this is complemented

with a constructive and positive way of thinking, employees are more likely to work with solution-seeking methodologies (M15) and gain problem-solving skills (M16), which reduce stress (O7), enhance goal attainment (O3), that indirectly enhance well-being (O8) as well (Grant, 2017a; Minzlaff, 2019).

At the end of this iterative complex process, the relationship between goal attainment and well-being is viewed via the lens of satisfaction theory, “which states that emotional responses are a result of automatic subconscious value appraisal” (Latham & Locke, 1991, p. 231). Through this lens, goal attainment is viewed as one’s appraisal of their performance standards. Thus, it can be inferred that the higher the value of the goal to the coachees, the more satisfied they get upon attaining or achieving the desired performance standard, and the more it reflects on their well-being.

Summary of findings

This review proposes that CBC interventions in the workplace work by enhancing personal and professional goal attainment, performance and well-being as distal indirect outcomes through cognitive and behavioural tools (Neenan, 2008). The cognitive route is targeted at identifying, challenging, and removing psychological blocks to well-being and performance, such as thinking errors, self-limiting, irrational beliefs, and less adaptive emotions (David, 2016). The behavioural route is a practical action-based one that targets removing the behavioural blocks, such as counterproductive behaviours, and enforcing self-regulation through goal-directed action planning, progress monitoring, evaluation, and feedback (Minzlaff, 2019).

Comparison with Existing Literature

This section aims to discuss the reviewed CBC literature in comparison to general coaching research.

A Critical Overview of Coaching Research

Despite the attention given to coaching research recently, there are several research limitations and weaknesses. The reported weaknesses of the included literature, especially those articles with an empirical element, match the weaknesses frequently reported across general coaching research. Coaching research design is criticised for the frequent use of small sample sizes. In these studies, small sample sizes are not criticised for non-significant results and lack of statistical power but more for the representativeness of the small sample of the population. Coaching research is also criticised for over-dependence on self-reporting, lack of attention paid to long-term outcomes, and

inconsistency of outcome determination, definition and conceptualisation, which causes difficulty in comparing results (Grant & Cavanagh, 2007; Grover & Furnham, 2016; Minzlaff, 2019). Further, most of the available studies lack firm theoretical grounding and rarely specify the necessary coaching intervention design details (Jones et al., 2016; Wang et al., 2021). Additionally, in their meta-analysis, Theeboom et al. (2014) reported the biggest limitation as the lack of research focusing on the causal mechanisms of coaching effectiveness. These weaknesses can be partially attributed to the fact that coaches conduct research with limited proper research training (Theeboom et al., 2014). A significant subset of research is also conducted by psychologists (Gardiner et al., 2013; Gottschalk et al., 2019; Green et al., 2006; Kearns et al., 2007), who, according to Palmer and Szymanska (2008), might potentially fall into the trap of in-depth case conceptualisation, focusing on individual characteristics and issues rather than goals, which is time-consuming and might be unnecessary for non-clinical coaching populations. Moreover, research attempts are limited by organisations' reluctance to participate in prolonged research that might highlight the corporate environment's shortcomings or lay the responsibility for an employee's poor well-being on the organisation (David, 2016).

Other concerns relate to the possible negative effects of coaching, which is labelled by Kilburg (2002) as the 'taboo topic' in coaching research. The negative impacts of coaching are rarely examined in the literature. This might be due to ethical and methodological concerns around the practice of purposefully prompting such negative outcomes and concerns around any harmful implications. Thus, those negative outcomes can mostly be observed and collected during other research, that is not specifically designed to examine negative or unintended outcomes, and only a few studies have paid attention to and reported on these types of outcomes (De Haan, 2021). None of the studies reviewed reported negative CBC outcomes. However, some negative effects can be hypothesised in reference to the general coaching literature, although not specifically regarding CBC. In an explorative study, Schermuly (2014) details the adverse effects of coaching on coachees. He discusses a potential decrease in the meaningfulness of the job, the triggering of in-depth problems, emotional exhaustion, and an increase in perceived stress as a result of coaching. This study was further expanded in another literature review by Schermuly and Graßmann (2019). In their review, the authors presented possible negative effects, not only on coachees but also on coaches and organisations. For instance, coaches can experience stress while dealing with difficult situations that might impact their well-being or trigger their past traumas. Organisations risk the potential of higher employee turnover because of coaching, although this might be regarded as a positive outcome for both the coachee and the coach. In all cases, being aware of such negative effects is essential for practitioners to handle difficult coaching situations and more effectively prevent them if possible. None of these effects were configured in the provisional CMOs as scarce evidence was only found in the general coaching

literature and none was attributed to CBC specifically. This is considered to be a limitation of this review. Hence, the researcher aimed to investigate and probe more into mechanisms that might generate negative or unintended outcomes while evaluating the real-life CBC trial run.

Realist Review: Strengths, Limitations and Future Direction

This review aimed to inform a CBC programme design by using it to create training material to be delivered to the coach employed by an organisation. Training materials aimed to ensure that the coaching programme delivered and evaluated was evidence-based and that it aligned with CBC programme theories to be tested and refined.

The RAMESES methodological guidelines were followed in conducting this realist review. This review can be regarded as the first to explore CBC as a well-being workplace intervention in a CMO format. Explanations provided are based on evidenced findings along with the researcher's assessment of the literature and experience in the field. One major limitation of this review was the quality and quantity of literature available on the topic. Of the 59 included sources in this review, only 15 presented empirical findings. Most sources were either commentaries, book chapters or books reviews. While a realist approach accommodates including these sources, ultimately a limitation of this review is that the findings were not majorly based on empirical research, while the review aims to inform evidence-based CBC design. Nevertheless, the CMOs in this review will be subject to further empirical development in a following realist evaluation.

Another limitation is that the available evidence did not allow a definitive unpacking of the relationship between the context with specific resource mechanisms or variations in outcomes. This review was able to shed light on CBC as a workplace well-being intervention, but the relationship between contexts and mechanisms was not fully explicated in this review; consequently, this aspect of the CMO is more tentative. However, the review's findings provide sufficient information for programme design for the second phase of this study. The researcher is aware of the flexibility granted by the methodology to borrow "nuggets of evidence" across other disciplines to close knowledge gaps and further refine theories (Pawson, 2006a, p. 127). However, given that this can be an endless process, a decision to focus strictly on CBC-relevant literature in the first research phase, the review, as opposed to other forms of coaching or general coaching literature, was made due to limited time and resources as this was a PhD project. To mitigate this weakness in the future, researchers should consider widening the review scope to incorporate general coaching and other relevant literature. This can deepen our understanding of the programme theories and the interconnections between the contexts, mechanisms and outcomes theorised. Another option can be attempting to provide a more

holistic view of how the programme works in organisations from inception to conclusion by incorporating other intervention planning and evaluation frameworks. For instance, Roodbari, Nielsen, et al. (2022) advocate the use of evaluation frameworks, such as the five-phase model and RE-AIM, to enrich realist research. Such frameworks can help researchers expand the scope and include further significant intervention components in which CMOs can be developed. This implies an improved understanding of what to look at while reviewing an organisational intervention. To be specific, frameworks can guide the development and testing of more CMOs relevant to different stages of intervention design and implementation, which can provide a more viable answer to the realist question (what works or does not for whom in what circumstances and how) in organisational contexts (Roodbari, Nielsen, et al., 2022).

It is also important to mention that this study did not include a secondary reviewer despite several attempts with supervision to find a suitable candidate. However, the review's output underwent rigorous examination and interrogation by three multidisciplinary supervisors whose comprehensive assessment added to the robustness of the findings. Future research can consider involving a research team to build on the provisional outcome of this review by looking into similar interventions across disciplines, to widen the scope of the reviewed literature and enhance the programme theory accordingly.

Chapter 3: Research Methodology

The previous chapters presented the research topic and set out a theoretical framework through a realist literature review. This chapter presents the research methodology, approach and methods. The chapter aims to give the reader information about the assumptions and techniques that underpin the empirical data collection and analysis. The chapter presents the philosophical assumptions, research context and design, realist Interviews as the data collection tool, ethical consideration, and data analysis framework.

Philosophical Assumptions

Realist methodology is a form of research that focuses on understanding complex social interventions. Being ontologically objectivist and epistemologically interpretivist, realist philosophy promotes that real social phenomena exist independent of our consciousness and that our conception is mediated by contexts and personal experiences (Greenhalgh, Pawson, Wong, et al., 2017a). Only a partial and imperfect understanding of social phenomena is attainable which can be improved via applying scientific methods, but never fully achieved (Pawson et al., 2004). This section aims to shed light on realist understandings of how social phenomena can be unravelled.

Realist philosophy promotes that the world is stratified implying the concept of ontological depth. It also suggests that social phenomena have manifest and latent aspects which when activated can be observed in a social phenomenon. The latent aspect is characterised by the deep underlying structures and includes the potential features that are not yet activated in a social phenomenon (Jagosh, 2023a). In this stratified world, Bhaskar (2013) dissected ontology into three reality strata or levels. First is the empirical level, where we experience all the observable events. Second is the actual level, where experiences occur and reality is manifested but not necessarily observable. The third is the real level, where all the dormant potentialities, causal powers and latent structures of reality lie until activated in conducive contexts. To simplify, we observe the growth of a tree at the empirical level. The underlying biological process resulting in this growth lies in the actual level and every other potentiality that might result in the tree growing or not lies in the real level, waiting to be activated in a specific context. This also supports the realist claim that social phenomena cannot be traced to a single factor but rather to an amalgamation of several unobservable causal powers operating at different levels. This amalgamation cannot be universal, hence realist causal associations represent adaptive 'demi-regularities' or semi-predictable patterns to be transferred across different contexts (Gilmore et al., 2019). Thus, realist research prioritises the conceptualisation, contextualisation, and

provision of relevant and rigorous descriptions of causation. Realist research aims to achieve ontological depth by exploring beyond the evident layer of reality to understand the underpinning generative forces and causal powers. These underpinning causal forces are referred to as mechanisms and these mechanisms are either activated or remain latent based on the contextual factors.

There is a debate in the literature and among the realist community about the various forms of realism and how they shape realist methodologies. The two key forms of realism according to Bryman (2016) are critical realism (Bhaskar, 2013) and scientific realism (Pawson & Manzano-Santaella, 2012), yet there are still differences in perspectives within both. The key difference between critical and scientific realism concerns the possible claims that can be made regarding the generative mechanisms. Ontologically both are similar in the sense that critical realism promotes a layered reality and scientific realism focuses on the mind-independent reality, where processes and entities exist independent of our observations and postulations (Bhaskar, 2013; Sankey, 2021). Both schools mainly differ epistemologically. Critical realism, while emphasising human knowledge fallibility and the limit it imposes on gaining profound knowledge, advocates the critical investigation of empirical evidence to uncover deeper understandings and gain approximate knowledge of the truth. On the other hand, scientific realism adopts a notion, which Mukumbang et al. (2023) refer to as the semantic notion, that scientific theories, based on empirical data, can be trusted to capture our mind-independent reality (Chernoff, 2007; Sankey, 2001). Hence, scientific realism adopts the epistemic notion that the most credible theory represents an approximation of the truth. The key difference between critical and scientific realism is well articulated by Mukumbang et al. (2023, p. 510): “The epistemic notion of scientific realism also addresses the difference between a theory being the most explanatory and predictive potential (critical realism) and its being approximately true (scientific realism)”. Acknowledging such distinctions, it can be argued that although both philosophies provide different perspectives, both positions have the potential to provide a deeper explanation of different epistemological and ontological stances on which realist approaches operate (Mukumbang et al., 2023; Porter, 2017).

Though there is often disagreement, many authors exploring this relationship assert that both forms of realism are closely related and both can be recognised to inform realist methodologies (Chernoff, 2007; Jagosh, 2020; Mukumbang et al., 2023). The critical realism belief of stratified reality informs the belief of ontological depth adopted in realist approaches as well as provides support for the existence of relevant generative mechanisms linking the three ontological levels (Jagosh, 2020). It also promotes tools such as using direct probing questions to investigate actual events further as

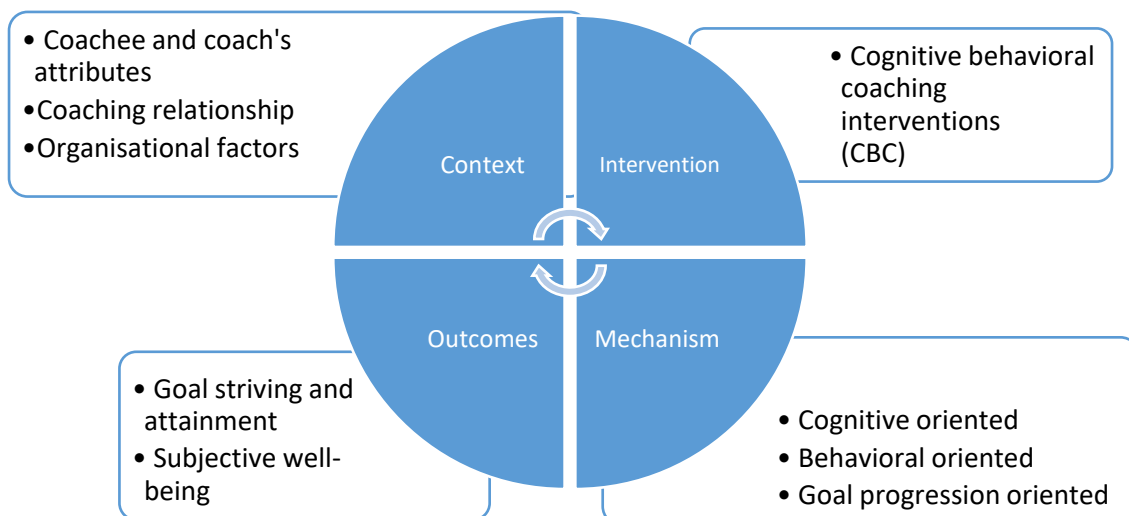
directed by realist interviewing and other realist data collection methods (Westhorp & Manzano, 2017). On another note, scientific realism's belief in capturing an approximation of our independent reality encourages the utilisation of diverse approaches to causal analysis to accommodate diverse data types, sources and theories that can inform the mind about our reality (Pawson, 2006c). Additionally, its semantic and epistemic notion fuels the realist researcher's intentions to refine theories constantly in search of the CMO configurations that best explain current reality. It also validates the realist researcher's approaches in applying judgemental rationality to select theories with the best explanatory power (Meyer & Lunnay, 2013; Mukumbang et al., 2020). While recognising the disputes over the boundaries of critical and scientific realism, this study follows Pawson and Tilley (1997) realist research approach, which is largely based on scientific realism.

The focus on mechanisms in realism is supplemented by a focus on contexts, acknowledging that both individuals and interventions are constantly situated in ever-changing contexts. These contexts are multifaceted with interrelated components including cultural, social, economic, political and historical elements (Jagosh et al., 2012). The contextual elements influence intervention outcomes, through triggering various mechanisms. If understood properly, contextual elements can serve as a catalyst to trigger desired mechanisms within an intervention (Pawson, 2013). Thus, identifying and comprehending these contextual elements is critical to the understanding of the success or failure of interventions. Realism calls for contextual sensitivity not only across diverse settings but also via acknowledging the interplay of different contextual elements within a single study (Pawson & Manzano-Santaella, 2012). Also, realism emphasises the role of the researcher's reflexivity to avoid risk of bias while attempting to untangle contextual elements and their implications on outcomes. The contextual sensitivity stance can be particularly useful in studying interventions in organisational studies. As organisational contexts are becoming more volatile, uncertain, complex and ambiguous (VUCA), programmes delivered by professionals are becoming equally complex and multifaceted (Kovacs & Corrie, 2016). A realist approach acknowledges that interventions will likely not be universally successful. Instead, outcomes are contingent on different contexts that can trigger different mechanisms. Thus, realist research aims to understand "what works for whom, in what circumstances, in what respects and how" (Pawson et al., 2004, p. 6).

This study operationalises the philosophical assumptions detailed in this section. To begin, Denyer et al. (2008) promote the use of CIMO logic, presenting research context, intervention, mechanisms and outcomes, to address the issue of organisation and management research being fragmented and irrelevant to practice. The CIMO logic is used as it aligns with realist concepts and

provides a solution-oriented framework for organisation studies to translate its evidence base to practice. Figure 6, which was presented earlier as Figure 1 in Chapter 2 and repeated here for accessibility, presents (CIMO) framework with key realist definitions. In this study, realist methodology was operationalised in two segments. The first was a realist review stage using data from existing studies, as presented in the previous chapter, and the second was a realist synthesis stage supporting the review results with primary qualitative data to ground and refine the review findings.

Figure 6: Review CIMO Framework



Key Realist definitions

Programme Theory: The implicit or explicit explanatory theory that can be used to explain specific parts of programmes or interventions (Jagosh et al. 2014, p.4; Shearn et al., 2017)

Programme Strategy/Architecture: “The descriptive elements of the programme being studied” (Jagosh, 2023; Pawson & Manzano-Santaella, 2012). Example: conducting an awareness session.

Context: In realist methodology, it is “any condition that triggers and/or modifies the mechanisms” by which programmes operate to generate outcomes (Jagosh et al., 2014, p. 4).

Mechanisms: In realist methodology, a mechanism explains how and why a programme generates specific outcomes. It represents “the generative force that leads to outcomes” (Jagosh et al., 2014, p. 5), and is activated within supportive conditions or contexts (Greenhalgh, Pawson, Wong, et al., 2017b).

These are divided into,

Resource Mechanisms: The components and underlying entities, processes and structures introduced by a programme in a context, i.e. the “combination of resources offered by the programme under study” (Dalkin et al., 2015, p.3). Example: two-way communication within awareness sessions.

Reasoning Mechanisms: The “stakeholders’ reasoning in response” to resource mechanism introduced within context that result in outcomes (Dalkin et al., 2015, p.3). Example: Feeling heard.

Outcomes: In realist methodology, outcomes represent aspects that change as a result of a programme; they “are either intended or unintended and can be proximal (immediate), intermediate, or final (distal or occurring on the long run)” (Jagosh et al., 2014, p. 5)

Context, mechanism, and outcome (CMO) configurations:

“A heuristic used to generate causative explanations pertaining to outcomes.” (Jagosh et al., 2014, p. 4),

“It is the basic causal explanatory framework for realist evaluation and realist reviews. Stated as a sentence, it means ‘In this context, this mechanism generates this outcome.’ (Greenhalgh et al., 2017a, p. 2)

Research Design

Research Context

The synthesis phase was executed in collaboration with my current employer, a consultancy organisation located in Egypt. The organisation was established in 2008 and currently employs approximately 150 software consultants. The organisation specialises in business and software systems consultancy. It operates in a wide range of countries including, but not limited to, Egypt, United Arab Emirates, Saudi Arabia, Nigeria, and Kenya. The organisation operates in both the professional services (consultancy) and Information technology sectors, which are highlighted by Deloitte's mental health and employers' report (2022) as being the second and third most adversely impacted by employees' poor mental health, the company dedicates 20 – 30 % of profits annually to human resources management, health and development initiatives. In 2018, a coaching programme for the company's consultants was initially introduced to enhance goal attainment and well-being, increase job performance, and reduce turnover. The programme was delivered by an employed coach who implemented a commercial, non-evidence-based coaching programme. Participation in this programme was voluntary and in the employee's own time. The programme was made available to all employees at no cost. In the first two years of the programme's implementation, the programme had a high attrition rate (60% - 70%). Policymakers and senior managers then collaborated with the researcher to make the intervention more evidence-based.

Organisation's Role: Coaching Programme Trial Run

The organisation's top management decided to invest in developing a coaching programme to be more structured and evidence-based. This decision was reflected in the launch of two projects in the organisation's talent division. First was a research project to help make the programme more evidence-based and empirically evaluate its effectiveness. The second was a coaching programme design and execution project. The first project was assigned to me as I volunteered to take it as part of my PhD. I proposed to conduct a realist literature review and to use the provisional CMOs to inform the programme design. Then the talent management team at the organisation attempted to design the coaching programme in collaboration with an external coach to incorporate elements of context and resource mechanisms identified through the realist review. Despite being employed by the organisation, I was not responsible for designing or conducting this trial run. I was responsible for delivering a training session to the employed coach who was in charge of programme design and execution. The training intended to transfer the knowledge acquired from the provisional CMOs to inform the programme design, as per the training material in Appendix 5.

The training material was developed by compiling all the reviewed literature and organising it according to the CMO framework to design a programme strategy. This stage relied mainly on non-empirical evidence such as books and book chapters (*as the empirical papers mainly informed the outcomes element of the theory which were excluded from this stage to avoid bias*). Additionally, coaching tools and exercises identified in the literature were compiled into a toolbox for the coach to utilise during the programme's design and implementation. The training was delivered in the form of a 3-day face-to-face workshop, where the researcher went through the entire training material and toolbox with the external coach. During the workshop, the researcher provided a detailed explanation of the elements of the theory, focusing on required contexts and resource mechanisms, emphasising the importance of incorporating such elements, as outlined in the programme strategy section, to ensure the programme was considered evidence-based. The researcher was able to check that those elements were implemented later during the interviews with participants. The coach was given two weeks after the training to internalise the training and commence with the programme design. The researcher was not included in the design workshops of the coaching to minimise influence and bias.

The training was planned with extreme caution to avoid validity and confirmation bias. The training material emphasises the required contexts and the resourcing mechanisms that were expected to be introduced by the programme without disclosing information about the reasoning mechanisms and expected outcomes at that point. Specifically, the training document detailed only the desired conditions and the tools that should be offered by the programme. This was intended to guide stakeholders in the programme design process without influencing what should be expected at the end of the programme. This non-disclosure of reasoning mechanisms and expected outcomes was maintained to avoid leading the intervention results or the research becoming a mere validation of the provisional CMOs. A detailed description of the designed programme elements and programme strategy is presented in the following section.

The organisation then proceeded to run a trial of the evidence-based programme with 10 employees for feedback before making an effective change to the policy across the entire organisation. The trial run aimed to test the organisation's ability to design and execute an evidence-based coaching programme based on the programme theories constructed from the realist review. The organisation was also looking to gain insights on the programme outcomes and how to improve the implementation chain further before their wider implementation (Cope, 2015). Being a consultancy organisation, it was expected to have the expertise and knowledge in designing and implementing interventions as programme design and execution are part of the services the company offers to its customers. However, unsuccessful attempts were also acceptable by top management, as such attempts could still yield fruitful data to investigate unintended outcomes and shed light on the

entire implementation chain. This trial run was outside of my scope of involvement. At the conclusion of the trial run, as reported by the coach and confirmed by the organisation, the organisation’s role ended, and my role as the researcher began. Figure 7 provides a summary of the collaborative process between the organisation and the researcher; blue boxes indicate the researcher’s role, and white boxes indicate the organisation’s role.

Figure 7: Research Process Flow



Research Step	Responsibility	Subject for Ethical Approval
1: Conduct a realist review (Research phase - 1)	Researcher	N/A
2: Deliver the review’s provisional CMOs to the firm via a training session	Researcher	N/A
3: Coaching programme revamping	Organisation	N/A
4: Run coaching programme trial	Organisation	N/A
5: Conduct realist synthesis via realist interviews (Research phase - 2)	Researcher	✓

Programme Strategy

The concept of programme strategy (PS) concerns the programme architecture. It is useful to distinguish between the descriptive elements of the programme design and the mechanisms and outcomes activated within certain contexts (Jagosh, 2023). This section will outline the CBC PS, i.e. the description of the coaching programme trial run elements carried out by the organisation for this study. The main objective of the programme was to foster personal development and growth through a series of coaching conversations aiming to promote self-awareness, well-being, and goal attainment. The programme initiation was marked by an awareness session as a prelude (PS9). During this awareness session members of the talent management team along with the coach shared information about the basic principles of coaching, the difference between coaching and therapy as well as programme components in terms of timeline and logistics. Attendees were also assured of confidentiality by reading through and explaining the confidentiality agreement between themselves and the coach before signing. Then an opportunity for inquiries and concerns was opened to ensure a clear understanding on behalf of the 22 potential participants, 10 of whom registered. Participants

who decided to contribute were then instructed to proceed with a registration form that was sent via e-mail. The e-mail incorporated a readiness assessment questionnaire, including scales to measure motivation, self-reflection, and insight. The e-mail also incorporated a goal-setting form, prompting them to identify three specific goals to raise with the coach during the programme's 8-sessions (PS5). Participants were informed that these goals would serve as the focal point for coaching sessions, and that initial goals were flexible to change or modification as per subsequent conversations with the coach. The coachees were then prompted to book their 8 weekly sessions in advance through an online platform for the coach to coordinate availability (PS10, PS11).

Upon coaching commencement, the initial sessions focused on icebreaking and building rapport between the coach and the coachees. The coach started by gathering information about the coachees to understand better their background, experiences, and challenges. Coaching conversations at this stage were focused on the exploration of goals chosen by the coachees and the identification of any core problems and their root cause that might hinder goal striving and attainment (PS1). This gave room for the coachees to externalise their thoughts, promoting self-discovery, and generating the main content for subsequent coaching discussions. Moving forward, each session had an outset topic or challenge to tackle, relevant to the goals and challenges identified during the exploration conversations. Accordingly, subsequent sessions followed a pattern of exploration, challenging and resolution. Using the foundation constructed from exploration conversations, the coach directed the session flow to cognitive re-orientation (PS3). This process incorporated thought-provoking conversations, challenging the current thought patterns and encouraging the endorsement of alternative healthier perspectives. This technique is intended to allow the coachees to approach their goals with new insights and strategies. Integral to the success of these conversations was the incorporation of self-reflection exercises (PS2). The included exercises intended to examine current perceptions and alternative thoughts, identify thinking biases, and explore values, priorities, character strengths and weaknesses. Homework exercises were also assigned to habituate continuous self-reflection and ensure consistent engagement with the programme and commitment to personal goals. Another core exercise to the process of cognitive re-orientation was the design and execution of behavioural experiments (PS4). These experiments aimed to prompt coachees to validate newly acquired perspectives by transferring their new thoughts into tangible actions to be applied in real-life scenarios. Thus, experiments were designed during the sessions for the coachee to try them out outside and come back to the next session to reflect on their experiences and outcomes while attempting them.

Finally, the coach used the progress made during the previous cognitive behavioural stages to develop goal-directed action plans (PS6) towards the SMART goals identified by the coachees (PS5). Throughout the coaching process, the coach motivated the coachees to evaluate their progress, maintaining a feedback loop (PS7). Coachees reflected on their progress and achievements, pointing out challenges and setting a mitigation plan with the coach to ensure continuous improvement. The coachee was prompted to fill in a session feedback questionnaire that was given to the coach by the end of each session to help customise upcoming sessions and the coaching experience accordingly. At the conclusion of the coaching journey, an evaluation conversation took place where the coach and the coachee reflected on the entire experience and developments pre and post the coaching journey (PS8). Table 6 outlines the programme strategies used to guide the analysis and configuration process.

Classification	Programme Strategy/ Architecture
Cognitive	PS1 – Coaching conversations for exploration including, <ul style="list-style-type: none"> • Inference chaining • Socratic questioning • Guided discovery
Cognitive	PS2 – Written reflections exercises guided by ABCDE Model
Cognitive	PS 3 – Cognitive re-orientation techniques such as, <ul style="list-style-type: none"> • Reframing • Immersion • Visualisation • Gradual restructuring • Checking for assumptions • Dealing with assumptions and inaccuracies, normalising thoughts
Behavioural	PS4 - Designing behavioural experiments and reflecting on them during the session.
Behavioural	PS5 - SMART goal setting
Goal Progression	PS6 - Goal directed action planning
Goal Progression	PS7 - Progress monitoring and periodic (weekly) follow-ups through, <ul style="list-style-type: none"> • Task management record • Progress reflection sessions
Goal Progression	PS8 – Progress evaluation conversation - quantify progress and compare differences in thoughts, emotions, and behaviours pre and post.
Logistics	PS9 – Programme induction session PS10 – Session location PS11 – Session timings

Table 6: CBC Programme Strategies

Researcher's Role: Researcher's Positionality

The researcher becomes an active participant in the knowledge construction process rather than an observer in order to be able to highlight the dynamic interplay between the context, mechanisms and outcomes (Pawson, 2006b; Pawson & Manzano-Santaella, 2012). This section is dedicated to exploring the researcher's positionality. More specifically it will highlight the researcher's identity and experiences, and their impact on the realist synthesis thereby acknowledging all potential influences on the research process and outcomes (Holmes, 2020).

I was a full-time consultant in the same company where the research took place. I switched to part-time employment upon PhD commencement. I am also a certified coach. I engaged in managerial coaching for my team as part of the organisation's performance management and appraisal policies. Along with the talent management team, I took part in assessing and qualifying the coaching programme introduced in 2018, which included reviewing coaching proposals and interviewing potential coaches. Being part of the organisation where the study was conducted has given me unique insights regarding the corporate culture, structure, and relevant historical practices. Such insights can add to the understanding of the contextual complexities of the coaching programme. However, I am aware that these insights can easily influence the interpretation of the findings. Also, with the organisation being the employer and the funder of this research project, I had to be aware of potentially shaping the findings (consciously or subconsciously) to fit the organisation's interest. The organisation's mission is to be the company of choice for customers, partners and top talents. It aims to serve as a talent hub in which various members can have the opportunity to unlock their maximum potential and build their talent profiles. Additionally, as a former coach, I can be regarded as a strong advocate of how coaching practice can empower others. I also claim to have good insights into coaching dynamics. This coaching advocacy drives my passion to explore the underlying mechanism to improve coaching effectiveness. Nevertheless, this enthusiasm might represent an implicit assumption that coaching must be valuable in most organisational contexts. Thus, it imposes a risk of bias as well as potentially overlooking the challenges and the unintended outcomes of this programme.

It is important to acknowledge the potential impact of my professional role on participants' perceptions. This research was affected by my participation in the development and execution of other coaching, talent development and well-being programmes, and my position as a manager within the organisational hierarchy. The fact that I actively contributed to the design of various training initiatives and being recognised as one of the main architects of talent programmes might lead potential participants to believe that I view the success of these programmes as my own. Consequently, it might

influence a participant's perception of my objectivity as an evaluator. Additionally, my position within the organisational structure can evoke perceptions of expertise, but also questions about authority and power dynamics. This was obvious during the programme trial execution phase by the organisation and the external coach. Implementing measures to ensure voluntary participation in the coaching programme was out of my control since the trial run was fully carried out by the organisation and the external coach. However, participation in the interviews was voluntary as only 8 (out of the 20 invited potential participants) chose to accept the invitation for the interview. Only one participant had a prior direct working relationship with me. Still, her participation in the interview was voluntary and the information gathered during this interview was rich with insights about negative/unintended outcomes and recommendations to improve due to the existing rapport.

During the interviews, most interviewees reported thinking participation in the programme was mandatory despite my attempts to clarify participation was voluntary, that I was not involved in this programme execution and that it would be carried out by the external coach. Also, this perception of authority remained despite written and verbal communication by the coach and other members of the talent management team that the programme was completely voluntary. Consequently, my positionality in this research is largely constructed by my organisational role. Through transparently addressing such influences through reflexivity I aim to address potential conflict of interest to enhance the integrity of the research process.

In an attempt to mitigate the risk of bias resulting from my position, the researcher engaged in reflexivity, as detailed in the following section, along with engagement in critical self-reflection as well as regular research supervision discussions to ensure transparency and rigour. I also made sure not to be involved in the programme trial run to prevent undue influence on its execution or outcomes. Similarly, I limited the information shared with the external coach (who was responsible for the trial programme execution) to the desired conditions and tools. Information about expected programme outcomes and expected impact on coachees and their reasoning was restricted to avoid unduly influencing the actual programme outcomes. Correspondingly, realist interviews were then conducted separately after the programme's conclusion, which aided me in separating the programme data collected from data and knowledge from any previous coaching practices. The research design section expands more on strategies to mitigate bias.

Researcher's Role: Reflexivity and Potential Conflict of Interest

It is not realistic to deny the researcher's influence and claim to approach the research neutrally with no prior knowledge, given that in this study the researcher is an insider. This section is

an attempt to enrich the research's rigour and confirmability. This critique adopts Walsh's (2003) dimensions of reflexivity, as cited in Olmos-Vega et al. (2022).

First is personal reflexivity, reflecting on the influence of the researcher's background, as previously introduced in the researcher's positionality section. Having been a practitioner for six years constitutes a challenge to shift from a practitioner's mentality, with a more straight-forward approach to concepts, to a researcher's critical mentality. The involvement of four different research supervisors during the review and research period has facilitated collaborative reflexivity, through constantly challenging the researcher's assumptions and decisions with difficult questions (Olmos-Vega et al., 2022). This process has guided the critical amendment of decisions so far. Despite this, the researcher acknowledges that constant reflection is necessary to mediate pre-existing biased notions and feelings about the research topic.

Second is interpersonal reflexivity, reflecting on relationships and power dynamics. Although interpersonal relationships have granted access to resources, such as funding and participants, potential drawbacks are also evident. One participant, who was previously coached by the researcher, might be prompted to either highlight their positive experiences only or withhold information. Others might avoid participation altogether. As a precautionary action, the researcher focused on communicating openness to the participants formally (through the participant information sheet) and informally. Informal conversations were seen as essential for the rapport and trust-building process, to discuss participants' feelings about taking part and address any concerns or misunderstandings. Additionally, collaborative reflexivity was also practised with participants by sharing primary interpretations of collected data, for them to feedback on how their views were interpreted. Also, the organisation was keen to convey that the research intention was to evaluate this programme accurately (not the participant's performance or contribution to it), to maximise its benefit to employees or discard it for a better option. Given the financial losses, resulting from previous coaching programmes funded by the company, and reported by the organisation historically due to low uptake and high dropout rate, the organisation's main motive was to calculate the programme's return on investment. Consequently, a critical stance was taken to help with the commercial motives of the business while having the option to discard the programme completely for another one. This mitigated the risk of conflict of interest and bias towards evaluating the programme positively.

Third is methodological reflexivity, i.e. considering methodological decisions. The relative lack of consistent literature to guide this evaluation, along with the increased attention to CBC as an evidence-based coaching approach, has driven the choice of a realist approach. A realist approach permits the assessment of the intervention from a stakeholder's point of view, including the

researcher, allowing her to capitalise on her role (Olmos-Vega et al., 2022; Punton et al., 2020). Nevertheless, this still needed to be carried out with extreme caution to avoid bias. Thus, as per Olmos-Vega et al. (2022) recommendations, before data collection, a self-interview was recorded for the researcher to be constantly aware of her expectations and assumptions compared to participants' experiences. The researcher also kept an analytical journal to enable her to distinguish her thoughts from the data collected. Additionally, during data analysis, the researcher's reactions to data were journaled to be reflected upon when discussing the findings. Thus, being transparent about the researcher's views and reactions potentially mitigated the risk of conflict of interest and bias to render the programme effective, as congruency between those views and the findings had to be justified with further evidence.

Realist Interviews

The programme trial outcomes were captured via individual realist interviews. Interviews were chosen to allow the participants to voice negative opinions to the researcher individually while maintaining their privacy and complying with the ethical considerations discussed in subsequent sections (Manzano, 2022). According to Manzano (2016), realist interviewing is the main method to generate data about programme effectiveness in realist evaluation and synthesis. Being a theory-driven interview approach, theory is used to guide the interview design and the interviewing process. The interviews are designed to draw on the stakeholder's experiences of the coaching trial programme to challenge and test the provisional CMOs and further refine programme theory. The theory refinement process incorporates the exploration of the aspects and concepts of participants' experiences, as well as the propositions about the programme's mechanisms.

The realist interview process involves presenting the relevant CMOs to the interviewees, for them to validate or falsify those initial theories relative to their own real experiences. The approach uses a teacher-learner cycle where the researcher explains the hypothesised programme dynamics and expected outcomes and then learns about each specific programme component from the participant's point of view (Pawson & Tilley, 2004). This teacher role is interchangeable between the researcher and the participant to stimulate retroductive thinking in the participants to contribute to theory refinement phases (Manzano, 2016). These phases commence with theory gleaning, focusing on articulating a full picture of how context could impact the programme's effectiveness and users' behaviour. Theory gleaning is followed by a phase for theory refinement, focusing on refining outcome patterns and prioritising different candidate theories. Ending with a phase for theory consolidation, this includes presenting prioritised theories with real data for the interviewee to gain final validating

or falsifying data from them. Examples of code configuration and analysis are provided in Appendix 15.

In preparation for the interview, pragmatic decisions were made regarding with whom, how and the frequency of interviews to be able to gather the required data (Manzano, 2016). Variability in participants was crucial to gain a full picture of the programme's implementation chain and barriers as well as to investigate unintended outcomes. Ensuring a wide range of views was attempted by interviewing different groups of stakeholders. Purposive sampling was used to select stakeholders based on criteria such as their programme implementation roles and CMO hypothesis investigation potential (Pawson et al., 2004; Weiss, 1998). The initial number of interviews planned remained flexible, subject to the need of theory testing. The focus was on collecting a substantial amount of data, with every interview to enrich the explanations collected, acknowledging that the described events and processes were the main unit of analysis rather than the individual participants (Manzano, 2016). Conducting a pilot interview was crucial to ensure the researcher's grasp of realist interviewing skills and the complete visualising of the data collection and analysis process (Bergeron & Gaboury, 2020). Finally, one coach, six coachees and one talent management representative were interviewed in total for this synthesis. Coachees were mainly mid-level and senior consultants and project managers, who were involved with leading teams. Details on participants' characteristics are listed in the following section. All participants speak Arabic as their first language but are fluent in English as well. Interviews were conducted in the interviewee's first language in the aim of collecting more authentic responses (Welch & Piekkari, 2006).

The interview started with open general questions about the participant's own description and experience of the programme and its outcomes. This allowed the opportunity to explore potential evidence outside the provisional CMOs. It is also crucial to avoid confirmation bias, i.e. the risk of the data collection simply validating the provisional CMOs (Punton et al., 2016). Additionally, efforts were made during the interview process to ensure participants did not agree with the researcher's theory out of politeness or feeling it inappropriate to disagree with a perceived expert. Thus, concrete examples were requested whenever agreement was expressed. Also, participants were asked to adjudicate between rival theories to elicit their true views. Furthermore, participants were made aware that others with opposing views were also being interviewed in an attempt to encourage them to offer detailed insight (Jagosh, 2023c; Punton et al., 2016)

The interview design relied on stakeholders' awareness and experience of the coaching programme (Dalkin et al., 2015). Interview questions were pre-prepared with CMOs relevant to each participant (i.e., depending on their role) in a semi-structured format, to grant flexibility with inquiry

and room for probing for valuable insights. Information for interview preparation was collected before interviewing, as denoted in the participant recruitment and data collection section below. The design adopted Westhorp and Manzano (2017) interview guides, where questions were divided to ascertain which C, M, or O was most relevant to the interviewee; Appendix 6 presents an initial sample adapted to this research. Following the realist notion of emergence, the interviewer was ready to explore unexpected responses further (Punton et al., 2016). As the interview process continued, the interviewer became more knowledgeable about the programme's application, and interview questions were more tailored to refine specific theories, relying less on the guidelines. Complementing the initial general questions, a visual representation was used during the interview to initiate the reflection process about the provisional CMOs, as per Appendix 7. This was an attempt to ensure that all the CMOs coded from the review were subject to testing, development, and refinement. Repeating interviews with respondents to obtain further clarification was not always feasible, thus additional clarifications needed were obtained during the following interviews, to assist in refinement, along with going back to the literature when needed (Manzano, 2016).

Data Preparation, Analysis and CMO Configuration

Data preparation was carried out concurrently with data collection, laying the base for subsequent analysis. The preparation processes commenced with transcribing the interviews' audio recordings by a professional transcriber after each interview. To enhance the accuracy and quality of the transcripts, all initial Arabic transcripts were revised by the interviewer to ensure that interviewees' non-verbal cues were also captured. This allowed the researcher to deal with misinterpretations, inaccuracies, and omissions to ensure precise coverage of the spoken content and a clear understanding of the meaning (Braun & Clarke, 2019; Manzano, 2016). Upon transcription revision, translation by professional translators commenced as interviews were conducted in Arabic, to allow participants to express themselves freely in their native tongue. Translations afterwards were validated via a two-fold revision process. Initially, translated transcripts were revised by the interviewer, who focused on cultural adaptations and capturing the nuances of meanings. Another external reviewer was also included in the revision process. Revisions were then consolidated to include the most comprehensive meanings across English transcripts. This dual approach mainly targeted minimising potential bias and enhancing data trustworthiness (Ho et al., 2019). As a final fidelity check, the final transcripts were translated back to Arabic and compared to the original transcripts to capture any discrepancies in meanings (Chen & Boore, 2010; McKenna, 2022). Both transcription and translations were outsourced to save time as well as mitigate translation bias on the

researcher's behalf. Once a transcript was ready, it was imported into NVivo for further coding and theory refinement. Interview data was separated from literature data through different code structures to aid testing, comparison and refinement of initial CMOs (Dalkin et al., 2021).

The belief in ontological depth in qualitative realist analysis suggests that the researcher needs to tackle empirical data in a theoretical and extrapolative manner. According to Pawson (2006a), realist researchers cultivate what he refers to as 'nuggets of evidence' in the data. Nuggets of evidence refer to the pieces of good evidence that can help identify and understand underlying mechanisms. Evidence nuggets collected are then fed into the Context-Mechanism-Outcome configuration (CMOs), to explain the programme theory better through finding interlinkages between the data. In this research, data analysis focused on finding pieces of evidence from different participants that supported or challenged the provisional programme theories hypothesised via the realist review in phase 1 of this research. The views of different stakeholders were analysed and presented in light of the CMOs and not the particular role of the participant. This was done with the aim of further refining the synthesised CMOs as well as exposing the programme vulnerabilities, tensions and rivalries (Jagosh, 2023a). According to Wong, Greenhalgh, et al. (2013), realist analysis intends to extract evidence to support the hypothesis that a mechanism, introduced within a specific context, generates a particular outcome. Analysis thus leads to hypothesis amendments in the form of refined as well as novel CMO configurations. This configuration represents the hypotheses on the mechanisms of how CBC interventions applied in specific contexts generate well-being related outcomes. Further, the notion of "the ripple effect", introduced by Jagosh et al. (2015), was employed during analysis to understand better the full coaching process with its milestones. The ripple effect notion describes how the outcomes of one phase of the coaching process can set the stage as a context or a resource mechanism for the upcoming coaching phase. For example, the identification of psychological blocks as an outcome in one coaching stage can be regarded as a resource mechanism to generate further outcomes, such as achieving an adaptive way of thinking at a latter stage. This approach allowed the researcher to explore coaching as a complex journey rather than a mechanical process.

During analysis, inferences rely on processes associated with critical realism (Meyer & Lunnay, 2013). These tools include abduction, focusing on forming associations outside of the initial theoretical premise, and retroduction, aiming to "identify the circumstances without which something cannot exist" (Meyer & Lunnay, 2013, p. 4). Initial data analysis had already been conducted in NVivo while configuring the provisional CMOs for the realist literature review, as guided by Dalkin et al. (2021). The coding framework that reflected the provisional CMOs constructed in the review was used to guide the primary data analysis. Nevertheless, being mindful of the potential bias on the researcher's behalf to include evidence that merely validated her provisional CMOs, a round of open coding was

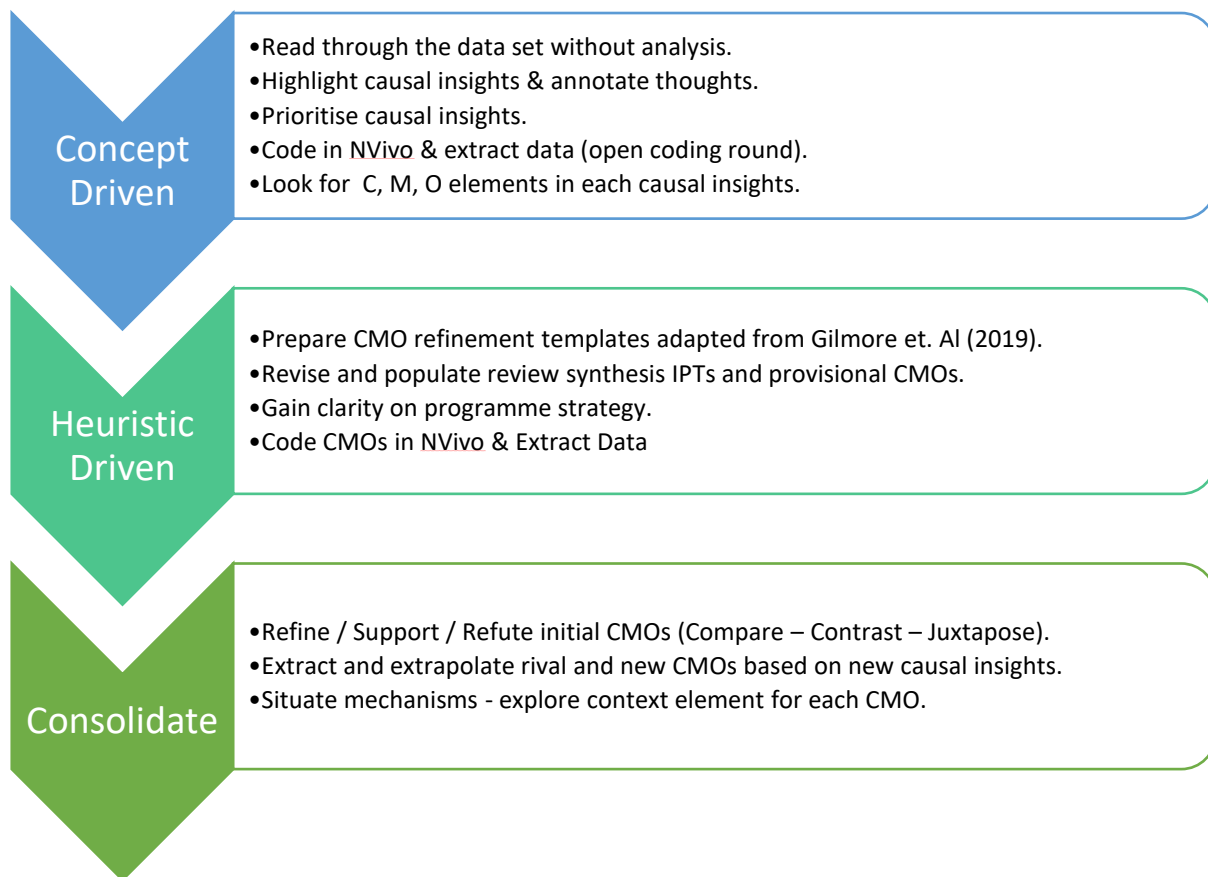
done primarily to ensure alternative explanations were captured and incorporated in the analysis (Meyer & Lunnay, 2013; Wiltshire & Ronkainen, 2021). The researcher used NVivo, along with data refinement templates, to document the rationalisations, comparison, juxtaposing and linking of evidence nuggets. The detailed analysis process is summarised in Figure 8 and discussed below as inspired by the course "Coding, Configuring and Conveying in Realist Analysis" by Jagosh (2023a).

Data analysis began with a concept driven coding phase, also referred to as open coding, in which coding relied on accentuating important causal insights in reference to the programme strategy. Causal insights are nuggets of evidence or important pieces of information that have the potential to contribute to the researcher's understanding of the interplay between context and mechanisms to generate specific outcomes (Jagosh, 2023a). This process was conducted to gain a comprehensive understanding of the data set without premature analysis. It was also intended to capture new insights that were not presented in the reviewed literature. Thus, a preliminary read-through of the data, accompanied by highlighting potential causal insights and annotations of initial thoughts, was performed. This process aided in the identification of initial patterns or points requiring further investigation. Causal insights were prioritised afterwards based on their potential explanatory power. The data were then coded using NVivo, which expedited systematic categorisation of causal insights. Using different codes facilitated the process of retroduction as it widened and informed the thought process and thus gave a more critical view to evidence under investigation (Bergeron & Gaboury, 2020). At this stage, the researcher attempted to classify codes within each causal insight reflecting Programme Strategy (PS), Context (C), Mechanism (M), Outcome (O) elements.

The concept driven phase of the analysis was followed by a heuristic driven phase. In this phase coding was done with reference to the provisional CMOs presented in conclusion of the realist review phase of this research (Jagosh, 2023a). This process aims at linking evidence coded previously from the literature review with evidence coded from transcripts. Recognising the complexity of the analysis, configuration and coding process, a supplementary theory refinement template (appendix 14), adopted from Gilmore et al. (2019), was used to guide the coding process and make best use of the included evidence. Initially, the researcher populated the template with information from the provisional CMOs, creating one document for each provisional CMO. Afterwards, the researcher revisited the transcripts to extract affiliate information that might support, refute, or refine the CMO. Changes in provisional CMOs continued in light of new data with the decision-making process recorded per each template. Novel evidence that was not deemed relevant to any of the provisional CMOs were added in a separate template and coded separately in novel CMOs when appropriate.

Finally, the final phase of analysis concerned theory consolidation (Manzano, 2016). This phase included a detailed comparison, contrasting and juxtaposing of all coded evidence along with the extrapolation of rival CMOs. This phase included finalising the mechanism contextualisation to draw an inclusive view of how the data portray the causal pathways to the coaching programme outcome. Despite the detailed process presented, it is worth acknowledging that theory refinement and consolidation can be an unceasing task; consequently, pragmatic decisions, based on time and stakeholders' needs and requirements, were taken on when to terminate (Jagosh, 2023a). Appendix 15 contains examples of all the work conducted relevant to data analysis for this research. Programme theories with their refinements are detailed in chapter 4 then discussed and further analysed in chapter 5.

Figure 8: Data Analysis Framework

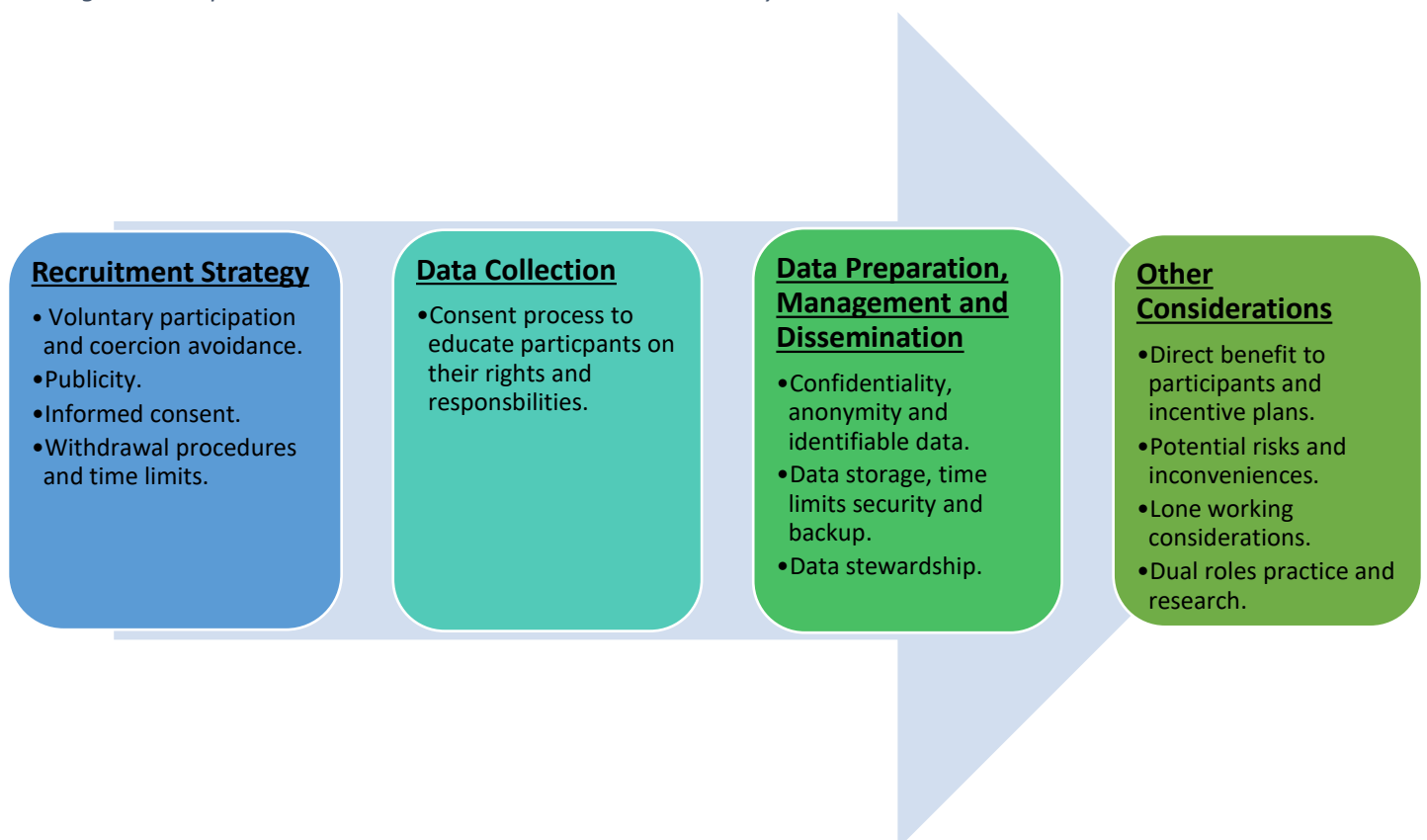


Ethical Considerations

This section discusses the ethical considerations of the research, which are summarised in Figure 10. The researcher aimed to comply with student research guidelines provided under the code of human research ethics developed by the British Psychological Society (BPS) (Oates et al., 2021). The BPS code is based on principles that guide the ethical considerations for this research. BPS ethical principles include respecting autonomy, dignity, and privacy, ensuring scientific integrity, assuming social responsibility, maximising benefit and minimising harm.

This proposal, along with a detailed ethics application (Appendix 8) and supporting documents, were reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee (FHMREC) as part of a PhD thesis project at Lancaster University. The research commenced after obtaining ethical approval on the 5th of December 2022, with reference code FHM-2022-1054-RECR-3, to start the research process.

Figure 9: Proposed Research Ethical Considerations Summary



Participant Recruitment and Data Collection

While recruiting for the interviews, all efforts were made for participation to be completely voluntary, free of coercion or deception. Details on participant characteristics are listed in Table 7. An announcement was sent to potential participants, via e-mail as per appendix 9. The announcement included a registration form link. The registration form included the participant information sheet (PIS) for details about the study as per Appendix 10. The PIS was designed to ensure participants were informed about their role. The registration link also included a consent form, as per Appendix 11, to be digitally signed to confirm willingness to participate (Fouka & Mantzorou, 2011). Finally, the form included a question for the participants to determine the level of information access to the programme documentation for which they gave permission. The information, including exercises and session debriefing sheets, were to be reviewed to guide the design of the interviews. Participants had the option to decline the request to share their programme documentation and in this situation were prompted to answer a short open-ended questionnaire when needed instead, as per Appendix 12.

<i>Case #</i>	<i>Gender</i>	<i>Age Range (years)</i>	<i>Employment Duration (years)</i>	<i>Seniority Level</i>
1	Female	35-39	3-4	Senior
2	Female	20-24	2-3	Mid-Level
3	Male	25-29	2-3	Mid-Level
4	Male	25-29	2-3	Junior
5	Male	25-29	2-4	Mid-Level
6	Female	25-29	5+	Senior
7	Male	25-29	5+	Senior
8	Female	30-24	1-2	Lead

Table 7: Participant Characteristics

Additionally, an explanatory session was organised for all potential participants. This session aimed to provide information about the research purpose, go through a detailed PIS (appendix 10), handed to each attendee as a hard copy, and the details of the consent form (appendix 11). The session

also provided an opportunity for potential participants to ask questions. At the end of the session, another e-mail with the registration forms was circulated as a reminder. After the session, potential participants were given a minimum of 24 hours and a maximum of a week to register or withdraw interest online, to avoid recruitment coercion. Participants were also given the chance to withdraw their submitted registration forms. Registration was closed as soon as the initial participant number required ($n = 10$) from across the different participant groups was reached. Registered participants were then sent a welcome e-mail with a link to book a suitable interview slot. During the interview, participants were informed that the interviews were digitally recorded, and that data were protected and anonymised with all personal identifiers separated. Additionally, instructions were given so that participants' names were not used throughout the interview.

Data Management

Data collection was conducted concurrently with data preparation, transcription, translation, and analysis. To use time most effectively, transcription and translation were both outsourced and funding for it was obtained from the organisation and agreed at ethics. All transcribers and translators signed the confidentiality agreement as per Appendix 13. Any personal identifiers detected during this process were removed from transcripts to maintain data anonymity.

Concerning participants' privacy, anonymity and confidentiality, all collected data was managed and stored in adherence to the UK Data Protection Act (1998) and the general data protection regulations (GDPR, 2018). Data collected were anonymised at the earliest point possible, in compliance with the ICO anonymisation code of practice. Personal data, i.e., data about participants that may cause them to be personally identified, were separated, and stored independently from the anonymised data set (GDPR, 2018). Personal identifier data will be deleted at the end of the project. Also, data are stored on the university-provided, password-protected, One-Drive cloud-based platform as advocated by the university policy. Additionally, during data analysis, extracts of evidence from the transcripts relevant to the preliminary CMOs were identified and separated from the interviews and the participant's role, then coded to their relevant CMOs. More precisely, the views of different stakeholders are analysed and presented in light of the CMOs and not the particular role of the participant. This process aimed to break the link between the data and the participants, to then compare, contrast and integrate these data with initial theories from the literature review, thus maintaining anonymity and privacy.

The researcher is aware that on occasions "guaranteeing complete anonymity to participants can be an 'unachievable goal' in qualitative research" (Saunders et al., 2015, p. 617). Thus, it is important to involve the participants in reviewing the draft report before the results are disseminated.

The final report was shared with all participants to allow them to review and assess if the way results were reported met the promise of anonymity granted in the participant information sheet and communicate any potential concerns. No comments or concerns were received from the participant's side. Also, only summarised anonymised processed data were shared. The use of quotations was limited to significant extracts that might lose meaning if altered. Pseudonyms were used for reported quotations. The final findings report followed the data management guidelines. Additionally, all prepared reports for submissions and publications followed the same guidelines.

Further Ethical Considerations

The researcher acknowledges the importance of maximising benefit as a principle in ethics (Fouka & Mantzourou, 2011; Walshe & Brearley, 2020). The purpose of this study follows this principle, as it seeks to maximise the coaching programme's utility to enhance participants' experiences and well-being. While this direct benefit might not be achieved, some participants might gain insight and find it beneficial to reflect on their goal-attainment process through discussions. While no major risks were expected for participation, potential inconveniences were expected. Given that this type of research might result in emotional distress by triggering upsetting memories and emotions, efforts were made to minimise harm. Participants were made aware that in case of distress, interviews could be stopped and resumed at their convenience. Further, contact details for counselling were included in the PIS, if another type of support was needed on the interviewee's behalf.

Chapter 4: Research Findings

Summary of collective coaching experience

Across the six coachees, the coaching programme elicited varied responses, with several shared themes emerging alongside divergent individual experiences. For four of the participants, the sessions facilitated meaningful progress by offering structured time to reflect, understand behaviour patterns, and apply new perspectives. Many found value in the exercises focused on examining automatic thoughts and challenging negative thinking patterns. For example, one coachee mentioned an exercise that helped identify cognitive distortions, which allowed them to approach challenges with less emotional reactivity (Interview 2). Another coachee described an exercise about self-perception, noting that feedback from peers helped highlight strengths they had not previously acknowledged (Interview 6). These techniques collectively fostered a sense of self-awareness and control over thoughts and emotions, empowering participants to initiate positive behavioural changes. Another participant, who initially doubted the practicality of coaching, reported achieving a 30-40% progress toward their goals. They expressed satisfaction with this partial improvement, as it exceeded their initial expectations of zero growth (Interview 3).

Conversely, two coachees reported limited benefits from the coaching. One participant felt that the sessions lacked novelty, noting, “the coach didn’t help me discover something new about myself,” (Interview 1, 694) suggesting that their own high level of self-awareness might have minimised the impact. This coachee appreciated the opportunity to vent, yet questioned whether the program's reflective approach aligned with their needs. Another participant found the coaching experience underwhelming, which they attributed to a lack of rapport with the coach, impacting their openness to engage fully and feeling understood in the session. Both of these participants expressed a desire for more practical guidance and actionable steps rather than broad reflective conversations.

Despite these mixed experiences, most participants appreciated having an external accountability source, with regular follow-up prompting them to address personal goals they might have otherwise overlooked. Additionally, a few mentioned feeling encouraged by the coach’s supportive feedback, which reinforced their commitment to growth. However, a shared critique among the participants was the absence of a structured maintenance strategy to support long-term progress, which several participants felt could have enhanced the programme’s impact beyond the sessions. These trajectories underscored a shared pathway of increased self-awareness and accountability for some while suggesting that others might benefit from a more customised, directive

coaching approach to meet their specific developmental needs. This chapter uses causal insights from the amalgamation of coaching experiences collected to refine the provisional programme theory constructed via the literature review.

CBC Programme Theory Refinement

This section is dedicated to presenting detailed consolidated and refined theory, under four main themes in accordance with the cognitive and goal-setting theories discussed earlier in the research background chapter. Themes aim to highlight the main elements of the CBC programme from the research perspective, which were considered for designing an evidence-based programme. These themes are cognitive (focusing on an individual's thinking patterns), behavioural, goal progression and other logistics considerations. The presented CMO configurations in this section show the theorised resource mechanisms (R) introduced by the designed programme strategy (PS) and activated when introduced in suitable contexts (C). The resource mechanism is expected to trigger certain reasoning mechanisms (RM) on the coachee's behalf and generate immediate outcomes (O) that can further lead to other distal or long-term outcomes (DO). This chapter is structured in the following way. Each CMO starts with a brief overview, followed by refined CMO statements and a more in-depth explanation for each statement to elucidate the reasoning behind and links between the coded elements in the CMO. Finally, each CMO is supplemented by a table to present a comparative view between the provisional CMO coded in previous chapters, and its refinements as a result of empirical data and quotations that supplied causal insights (i.e. supporting evidence) during analysis and configurations. All evidence presented in this chapter is related to the empirical data collected via realist interviews. Figure 11 shows a visual summary of the programme theories.

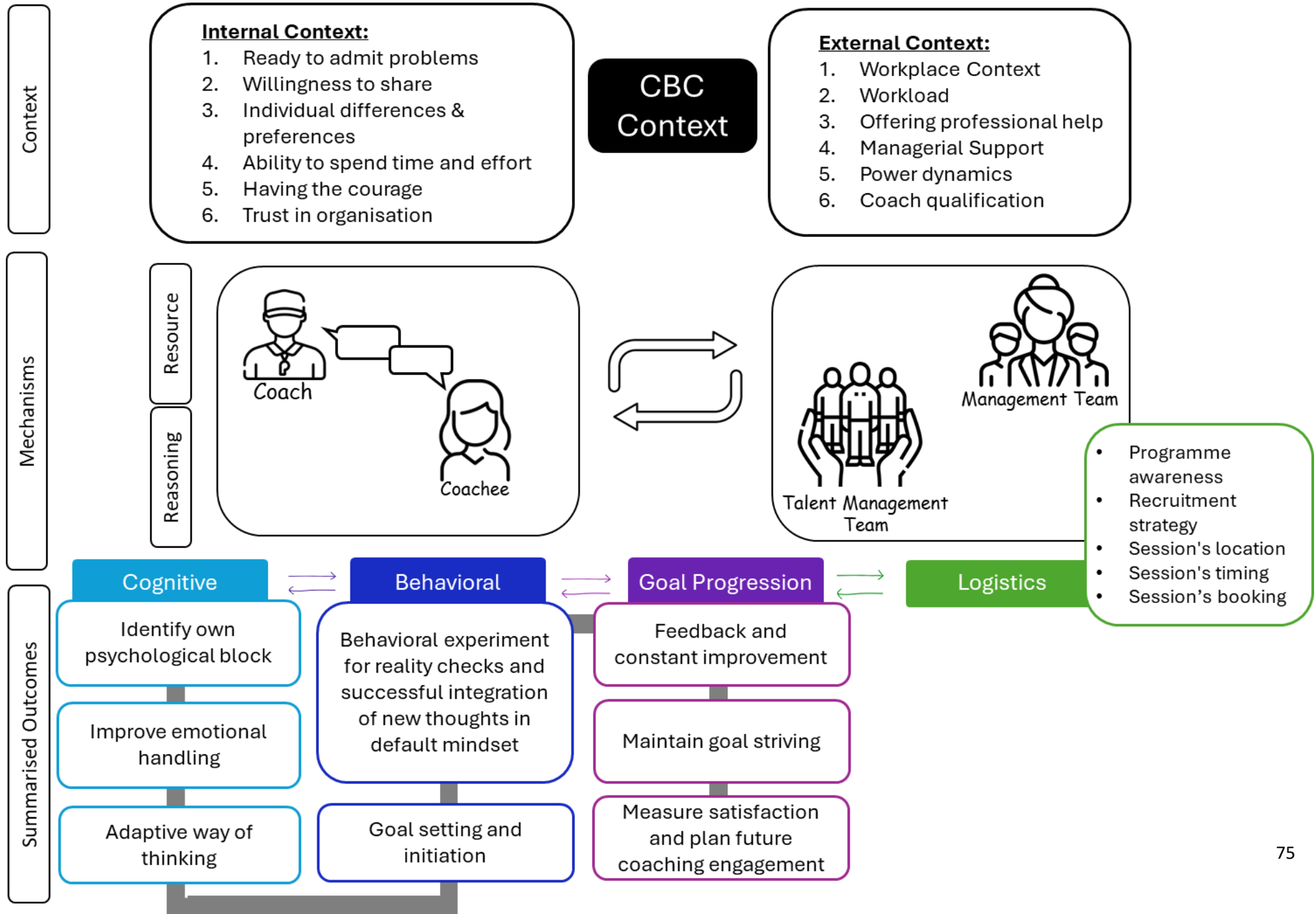
It is crucial to note that the refined elements are marked with an (r) before the code, making it easier to distinguish between elements coded from the literature and others coded from empirical evidence. Also, the ripple effects captured were marked during coding by an arrow symbol, for example, rO1 → rC means the refined outcome number one serves as a refined context in the presented CMO. Table 8 contains the coding key used to report the findings. This section, thus, demonstrates the overall patterns of refinement across the CMOs. It is also worth noting that all seven provisional CMOs from the literature review have been validated and mostly refined. Most of the CMOs had between 3 to 5 refinements. Four novel CMOs, related to programme introduction, logistics (time and place), and post coaching considerations were added from the empirical data gathered through the open coding (concept driven) round completed prior to provisional CMO configuration

refinements (heuristic driven) (Jagosh, 2023a). Appendix 16 presents a list of all the coded CMO elements with the refinements.

Theory element	Provisional code	Refined code
Programme strategy	N/A	PS
Context	C	rC
Resource mechanisms	R	rR
Reasoning mechanism	RM	rRM
Outcomes	O	rO
Distal outcomes	DO	rDO
Ripple Effect	→	

Table 8: Key for CMO configurations' coding

Figure 10: Visualisation of Programme Theories



Cognitive Aspects

CMO 1 - Coaching Conversations as a Way of Exploring Psychological Blocks

In reference to the PS related to the cognitive elements of the programme, the first provisional CMO for coaching conversations concerning thought exploration was refined and presented in Table 9. Key refinements are captured in the three main iterations (CMO 1.1, 1.2 and 1.3) detailed below. Iterations were further broken down (CMO 1.1 (a), 1.1 (b), 1.1 (c) ... etc.) to simplify complex refinements, detangle lines of causalities and highlight important findings. This logic was applied to all refined CMOs.

The data for this CMO complement provisional coding from the literature verifying that through exploratory coaching conversations directed by the coach's questioning, the coach is able to encourage the coachee's self-reflection (R1) which leads to enhanced self-awareness (RM1) and identification of psychological blocks (O1). As insights were collated, important contextual factors emerged from the data. Initially, the coachee's introspection or ability to self-reflect was provisionally hypothesised to be the main contextual factor to generate outcomes. However, this was not validated through empirical data. Rather, connections were made with coachees' readiness in terms of their willingness to share with the coach as well as admit and accept their problems. Other connections were found with the coachee's sense of trust in both the coach as well as the organisation. This sense of trust might moderate the coachee's willingness to share and their choice of information to disclose during the session. All refinements for this CMO were made in light of these contextual factors and are further detailed in the paragraphs below.

Refined CMO 1.1 – (a) *When coachees who **are ready to admit their problems** (rC1) and **are willing to share** (rC2), engage in coaching conversations for exploration, they allow the coach to guide their self-reflection process (R1) as well as stimulate their thought observation through voicing out their thoughts (rR1). Consequently, they are able to enhance their self-awareness relevant to the specific goal in mind (**targeted self-awareness**) (rRM1), which is key to identifying one's psychological blocks relevant to the goal being explored (rO1).*

This refinement concerns the identification of psychological blocks as an outcome in this CMO and a context for CMO 3 through a ripple effect. It is postulated that self-awareness as a reasoning mechanism needs to be targeted (rRM1). Targeted awareness is coined here to describe the focused attention that is directed towards a specific aspect or area of self-improvement related to the goal the coachee is trying to achieve. It can include deliberately channelling all the coachee's mental resources

to explore, analyse and engage with the chosen goal and how it links to other thoughts, emotions and beliefs. The provisional CMO assumed that the link between a thought and the desired action to achieve a goal is simple, linear, and easily identified by the coachee through harnessing general awareness of the self, the goal and the problem. However, almost all coachees interviewed reported a degree of self-awareness, awareness of the issue at hand and even awareness of the steps that needs to be taken for attainment. One participant reported: "I knew that I had a problem and that I was thinking about it (the goal), but I didn't know how to reach a solution or how to deal with it." (Interview 6, 361 – 363) Still, this kind of awareness (general awareness) did not facilitate finding solutions to problems or ways to complete the required actions to pursue one's goals. Thus, this refinement theorises that to facilitate action, targeted awareness (rRM1) to uncover various significant links between one's thoughts and the desired action is needed. It includes digging deeper into specific thoughts and emotions relevant to the desired goal domain to identify the core issues that might be inhibiting actions. In sum, the aim here is not just to improve the coachee's overall self-awareness and understanding of their emotions and reactions, but rather to improve their self-awareness in relation to their goal and the entire goal domain, uncovering what might be hindering progress. Thus, guiding self-reflection (R1) to targeted awareness (rRM1) is the first theory refinement, further mechanisms of targeted self-awareness are unpacked in refinement 1.1 (b).

Refined CMO 1.1 – (b) *When coachees engage in coaching conversations (PS1) to self-reflect (R1), they get the chance to **voice their thoughts and are able to observe their thoughts (rR1)** about their desired goal. This enhances their **targeted self-awareness (rRM1)**, via **drawing connections (rRM2)** and links that can lead to the **re-organisation of thoughts (rO2)** more beneficially, **gaining clarity (rO3)** and **broadening perspectives (rO4)** accordingly.*

This refinement further unpacks the mechanisms of targeted self-awareness. Together with the coach's questions which were intended to encourage and guide self-reflection, the act of voicing out thoughts (rR1) can be regarded as a resource mechanism that promotes thought observation on the coachee's behalf and thus can facilitate targeted self-awareness. Thought observation (rR1) can foster targeted self-awareness by allowing the coachee to make links and draw connections (rRM2), as reported by one of the participants, "during the coaching sessions, when I voiced things out loud, I realised that I connect them. This helped me organise my thoughts in a better way in my mind." (Interview 2, 36-37). This can facilitate the re-organisation of thoughts in a beneficial way (rO2) that is more coherent and potent to the coachee. As a result, the coachee achieves a higher degree of clarity (rO3) and is given the opportunity to consider other points of view, thus broaden their own

perspective (rO4). Further refinements related to the outputs of this CMO are detailed in refinement 1.1 (c) below.

Refined CMO 1.1 – (c) *When coachees engage in coaching conversations (PS1) to self-reflect and enhance their targeted self-awareness (rRM1), **divergence in exploration (rR2)**, i.e. exploring different thought directions and cognitive routes, is needed for the coachee **to identify their own psychological blocks (rO1)**. Consequently, they are given the chance to **reason their thoughts and beliefs (rRM3)** and rationalise their inner critical voice, which can lead to a **more adaptive way of thinking (rO16)**.*

A potential ripple effect was initially theorised regarding the identification of psychological blocks as an outcome. In the provisional CMO, the identification of psychological blocks serves as a context for the upcoming coaching stage concerning cognitive re-orientation (CMO 3). Further empirical evidence sheds light on the difference between psychological block identification by the coach (O1) as opposed to identification by the coachee (rO1). Refinement postulates that for the ripple effect to take place effectively and for the coachee to become ready for the next stage of cognitive re-orientation, the process of psychological block identification needs to occur on the coachee's behalf. That is, the coachee becomes the one who is fully aware of the existing block and its adverse impacts. In several occurrences, once the coachee is aware of how a specific thought, emotion, behaviour or belief is problematic to them, they automatically opt to change it, as supported by one of the participants saying, “when someone highlights something for you, you start paying attention automatically”(Interview 3, 510). This occurs as the coachee is provided space to reason their thoughts and beliefs (rRM3) and thus rationalise their inner critical voice. Hence, the cognitive re-orientation process, discussed in CMO3, becomes easier as old unbeneficial thoughts and blocks become easily replaceable and alternative thoughts become easily integrable within the coachee's default mindset, where thinking occurs automatically.

In some instances, the psychological block is only recognised by the coach. Accordingly, the coachee is less convinced to seek an alternative way of thinking, hindering the cognitive re-orientation process. In other instances, the block is recognised by the coachees but is simultaneously reinforced by other values or beliefs in their cognitive schema. This might make the coachees embrace the block, accepting its drawbacks that are hindering their progress in other domains. This was evident in one of the cases as reported by a participant: “I didn't feel much progress ... There might be another reason ... I am convinced that this way of thinking (suggested by the coach) is not correct and that the other way of thinking is correct. I can 100% see her (the coach's) point, but I might see it as wrong or not very beneficial for me, but I believe it could be beneficial for others or something else. This was also a

common debate between us. She mentioned more than once, that I should prioritise myself in any situation, which I'm not convinced with. I believe that it's not necessary for me to do so" (Interview 1, 297-302). In such cases, further schema and cognitive exploration (rR2) is needed to foster targeted self-awareness and further understand why the person is fixated on certain thoughts or beliefs despite awareness of their adverse impact. The coach can also aid coachees to realise the value and importance of their chosen goal, and why a particular block or belief is problematic in the context of goal initiation and progression, despite their perception of this block being useful or valuable in other contexts. This process not only allows the identification of the psychological block (O1) or performance issue related to the desired goal but it also encourages the need for mindset change. In sum, divergence in the cognitive exploration process, in terms of exploring different directions of thoughts, is theorised as another important resource for CBC (rR2). The exploration needs to diverge from the identification of direct causalities between thoughts and actions to an exploration of the entire schema pertaining to the desired goal and relevant beliefs. This accounts for the complexity of the human thought processes and develops awareness of the coachee's default mindset related to the goal. The next refinement discusses how exploratory conversations being problem-focused might result in some unintended negative outcomes.

Refined CMO 1.2 – (a) *Since the coaching conversation for exploration (PS1) initially focuses on **eliciting issues and problems in detail (rR3)** via the ABCDE exercises and guided self-reflection, this focus might lead coachees to feel like the **conversation is repetitive (rRM4) or negative (rRM5)** which might create **boredom (rRM6)** resulting in them **getting demotivated (rO5)** or leading to **disengagement (rO6)**.*

Although guided self-reflection is a key resource for CBC programmes, it is not without challenges. Several participants reported discomfort with initial exploratory conversations (PS1) due to them being problem-focused. While the coach attempts to investigate the entirety of the coachee's mind map about a certain issue using a blend of exercises and conversations relying on the ABCDE model (rR3), the coachee might view it differently. For example, the exploration conversation can come across to the coachee as repetitive (rRM4), being mostly based on the same model, and biased towards negativity (rRM5), i.e. focusing on problems, which can trigger feelings of boredom (rRM6) that can lead to demotivation (rO5) or lack of engagement (rO6).

Refined CMO 1.2 – (b) *When coachees engage in coaching conversations (PS1), the guided reflection on the coach's behalf might require **confrontational techniques (rR4)**, creating a 'facing the*

*elephant in the room situation', which might cause the coachee to **feel pressured and uncomfortable** (rRM7), resulting in **resistance** (rO7), and **lack of engagement** (rO6).*

Additionally, this refinement unpacks the impact of the confrontational nature of the coaching conversations. Guided self-reflection can create a 'facing the elephant in the room' situation (Interview 2, 165), which might elicit the coachee's resistance (rO7) and discomfort, causing avoidance, lack of engagement (rO6) and risk of dropout. Other cases also reported demotivation at this stage as the conversation and exercises felt repetitive (rRM4) and problem-focused.

The next refinement (CMO 1.3) concerns mechanisms specifically relevant to using written exercises to guide reflection within coaching sessions and how written exercises might impact outcomes differently within the context of individual preferences.

Refined CMO 1.3 – (a) *As part of the coaching session, time is given for the coachee to complete written reflection exercises guided by the ABCDE Model (PS2) that are used to **generate session content** (rR5). The act of writing **solidifies thoughts** (rRM8) in the coachee's mind, making it easier to **recall useful reflections in future situations** (rO8), which makes the upcoming efforts to change thoughts and integrate the new thoughts in the default mindset (where thinking occurs automatically) easier.*

Written reflection exercises are used as part of the programme strategy to assist in generating session content (rR5) and enriching the self-reflection process. In some cases, the writing format of the exercises is found to assist in solidifying (rRM8) and reinforcing the thought process on the coachee's behalf. Consequently, it becomes easier for the coachee to recall (rO8) useful reflection later on when needed, easing the integration of the new way of thinking in their default mindset. As reported in one of the interviews, "When I express my thoughts verbally, they flow back and forth with questions, but when I write them down, it solidifies it ... *It helps me when I encounter a similar situation, I remember what I wrote and the specific moment I wrote those words in*" (Interview 4, 159-164).

Refined CMO 1.3 – (b) and (c)

*(b) The written format of these exercises might **constrain the coachee's ability to express themselves** (rRM9). Also, relying on these exercises might leave coachees **feeling pressured** (rRM7) to complete the exercise despite discomfort and stress. This might lead to **forced engagement** (rO9) while the coachee is doubting the accuracy of their answers. This might further lead to feelings that the*

*conversation has lost its focus on the goal and is no longer **relevant or relatable** to the coachee (rRM10).*

*(c) when coachees engage in coaching conversations (PS1) about the written exercises, they are provided **room to explain themselves** (rR6) which makes them **feel heard** (rRM10) during this process, **reducing feelings of stress and pressure** (rO10) accordingly.*

Two additional refinements are made here. Relying primarily on answers and content generated from self-reflection exercises to moderate the coaching session (rR5) can put the coachee on edge. Some coachees reported that completing exercises in written format constrained their ability for self-expression (rRM9). Also, the coach's anticipation of detailed answers or thorough exercise completion might result in feelings of pressure and discomfort (rRM7) on the coachee's behalf. This pressure can lead coachees to force engagement (rO9) and provide inauthentic responses (despite their perceived accuracy) in fear of not providing enough content for the session or not meeting the coach's expectations. As reported by a participant: "I also did not want to mess the session up as we needed content to work with. If I kept delaying the exercises we wouldn't find something to discuss." (Interview 3,69-70). Although having the opportunity to discuss their answers afterwards, gives room for the coachee to reflect and elaborate further on their answers (rR6), which might elevate some of the pressure (rRM7) and reduce stress (rO10). However, the risk of a perceived lack of response accuracy and deviation remains, as the conversations that are built on forced answers might turn out or feel irrelevant and unrelatable (rRM10) to the coachee eventually.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO 1 – When coachees, who are self-reflective (C1) as well as ready and motivated for change (C2), engage in CBC conversations and exercises such as keeping a thought diary for self-reflection, inference chaining and guided discovery (R1), it enhances their awareness of their internal dialogue and self-talk (RM1), increasing their meta-cognitive skills (RM2). This helps employees identify psychological blocks (O1) as thinking biases, self-limiting and irrational beliefs, that lead to troublesome emotions and counterproductive behaviours</p>	<p>Refined CMO 1.1 – (a) When coachees who are ready to admit their problems (rC1) and are willing to share (rC2), engage in coaching conversations for exploration, they allow the coach to guide their self-reflection process (R1) as well as stimulate their thought observation through voicing out their thoughts (rR1). Consequently, they are able to enhance their self-awareness relevant to the specific goal in mind (targeted self-awareness) (rRM1), which is key to identifying one’s psychological blocks relevant to the goal being explored (rO1).</p>	<p><i>“I told the coach frankly in my feedback. She didn't help me discover something new about myself. So, if someone hasn't gone through that identification process, they would need the coach’s help to identify and address those issues. I don't know if it was done that way with me because I already had self-awareness, or if the approach itself wasn't effective. I'm not sure.”</i> (Interview 1, 692 – 696)</p> <p><i>“I mean, I knew I had these issues, but I didn't know the solution for them.”</i> (Interview 5, 363)</p> <p><i>“No, I knew that this was the right thing to do, but I didn't know how to do it.”</i> (Interview 7, 401)</p>
	<p>Refined CMO 1.1 – (b) When coachees engage in coaching conversations (PS1) to self-reflect (R1), they get the chance to voice their thoughts and are able to observe their thoughts (rR1) about their desired goal. This enhances their targeted self-awareness (rRM1), via drawing connections (rRM2) and links that can lead to the re-organisation of thoughts (rO2) more beneficially, gaining clarity (rO3) and broadening perspectives (rO4) accordingly.</p>	<p><i>“Interviewer: Okay, but ... you already knew them (the issues) from the beginning? ... Interviewee: Did I know them from the beginning? Well yes and no. It was not clear enough to me to enable me to make a decision or take action. This is when self-reflection came in handy”</i> (Interview 7, 450 – 454)</p> <p><i>“Many times, I didn't reflect on what I did or put myself in the other person's shoes... So, it was a bit eye-opening for me to start thinking from a different perspective.”</i> (Interview 2, 240 – 242)</p>
	<p>Refined CMO 1.1 – (c) When coachees engage in coaching conversations (PS1) to self-reflect and enhance their targeted self-</p>	

	<p>awareness (rRM1), divergence in exploration (rR2), i.e. exploring different thought directions and cognitive routes, is needed for the coachee to identify their own psychological blocks (rO1). Consequently, they are given the chance to reason their thoughts and beliefs (rRM3) and rationalise their inner critical voice, which can lead to a more adaptive way of thinking (rO16).</p>	<p><i>“Yes, I revisited many situations. I felt that naturally, I could have handled things better based on my character. But given the context and my emotional state at the moment, I understood why I acted or thought the way I did.....” – (Interview 6, 807-809)</i></p> <p><i>“But I discovered that that’s not necessarily true. I might be mistaken in a situation but, it wasn’t worth all that stress, and it might be that the reactions of others were not been the best. I realised that the stressors that were present could simply be changed if I shifted my mindset, realising that if I do not hold myself accountable to everything that happens it will be better for me.” – (Interview 6, 822-826)</i></p>
	<p>Refined CMO 1.2 – (a) Since the coaching conversation for exploration (PS1) initially focuses on eliciting issues and problems in detail (rR3) via the ABCDE exercises and guided self-reflection, this focus might lead coachees to feel like the conversation is repetitive (rRM4) or negative (rRM5) which might create boredom (rRM6) resulting in them getting demotivated (rO5) or leading to disengagement (rO6).</p>	<p><i>“Interviewer: What could happen for you not to feel this way (negative)? Interviewee: That I didn’t state the same problem, but in different forms. As I told you, I say the same issue, but in different words or contexts. At the end of the day, it’s the same problem.” (Interview 4, 86-89)</i></p> <p><i>“And the exercises, the exercises usually reveal problems. I’m tired of bringing up problems and tired of writing.” (Appendix 15, Interview 4, 263 – 264)</i></p> <p><i>“I started to feel like Okay, What’s next? One session after the other, I started to get a bit bored ... So I kept wondering, how long am I going to be in this phase, and for how long will I remain doing the same thing, and when will we move to the next phase.” (Interview 7, 64-69)</i></p> <p><i>“In the beginning when most of the conversation was me listing my issues without any analysis, this was very stressful” (Interview 7, 481-482)</i></p>
	<p>Refined CMO 1.2 – (b) When coachees engage in coaching conversations (PS1), the guided reflection on the coach’s behalf</p>	<p><i>“I felt like I confronted myself that I hadn’t done something I wanted to do” - (Interview 6, 936-937)</i></p>

	<p>might require confrontational techniques (rR4), creating a ‘facing the elephant in the room situation’, which might cause the coachee to feel pressured and uncomfortable (rRM7), resulting in resistance (rO7), and lack of engagement (rO6).</p>	<p><i>“When someone focuses on their problems, they realise that they have several issues and that realisation might bother people... It is like addressing the elephant in the room kind of thing. Interviewer: And is that feeling still present? Interviewee: To some extent, yes.” - (Interview 2, 165-169)</i></p>
	<p>Refined CMO 1.3 – (a) As part of the coaching session, time is given for the coachee to complete written reflection exercises guided by ABCDE Model (PS2), that are used to generate session content (rR5). The act of writing helps solidify thoughts (rRM8) in the coachee’s mind making it easier to recall useful reflections in future situations (rO8), which makes the upcoming efforts to change thoughts and integrate the new thoughts in the default mindset easier.</p>	<p><i>“Interviewee: When I express my thoughts verbally, they flow back and forth with questions, but when I write them down, it solidifies it. Interviewer: Yes, I understand. When you write them down, how does it impact you or help you further? Interviewee: It helps me when I encounter a similar situation, I remember what I wrote and the specific moment I wrote those words in. “ – (Interview 4, 159-164)</i></p>
	<p>Refined CMO 1.3 – (b) The written format of these exercises might constrain the coachee’s ability to express themselves (rRM9). Also, relying on these exercises might leave coachees feeling pressured (rRM7) to complete the exercise despite discomfort and stress. This might lead to forced engagement (rO9) while the coachee is doubting the accuracy of their answers. This might further lead to feelings that the conversation has lost its focus on the goal and is no longer relevant or relatable to the coachee (rRM10).</p>	<p><i>“Interviewee: Like I was saying if I have to write immediately and there is someone who’ll review what I wrote... I might not be able to write the most accurate thing... I will not be lying after all I’d really mean what I wrote ... but if I had more time, I might be able to articulate it in a better way to be better understood.” – (Interview 3,77 - 80)</i></p> <p><i>“Interviewer: ...it can be something like stress reduction or feeling better after venting? Interviewee: Not a reduction at all! on the contrary, sometimes it was very stressful trying to write” (Interview 3, 484-488)</i></p> <p><i>“Interviewer: Alright, tell me what was challenging about the exercises. Interviewee: Writing... I don’t know how to express my thoughts by</i></p>

		<p>writing easily... To write down one thought, I feel like it takes so much more time and effort. So, I feel this lack of ability, so I get bored, and when I get bored, I feel like I no longer want to think or write. The way my mind works is much faster than writing." (Interview 4, 127 - 135)</p>
	<p>Refined CMO 1.3 – (c) when coachees engage in coaching conversations (PS1) about the written exercises, they are provided room to explain themselves (rR6) which makes them feel heard (rRM10) during this process, reducing feelings of stress and pressure (rO10) accordingly.</p>	<p>"Interviewer: But, after you write the exercises, you surely discuss them, right? Interviewee: Of course. "Interviewer: Does that give you room to clarify or convey the meaning you want correctly. Interviewee: Yes, it improved the situation. Along with the idea that you can write without someone peeking at your paper as the coach left the room which gave us some freedom to think. This was relaxing." - (Interview 4,81-86)</p>

Table 9: CMO 1 Refinements

CMO 2 - Coaching Conversations as a Way for Exploring Improved Emotional Response

Following on from the first CMO concerning the cognitive aspects of the PS, which tackles the coachee's thinking, reasoning and perceptions during the coaching conversations, this next CMO recognises the influence of emotions on cognitive processes and presents hypotheses on how to moderate them in coaching conversations to generate the desired outcomes and mitigate adverse impacts on the coaching process.

Refined CMO 2.1 – (a) *when coachees engage in coaching conversations for exploration (PS1), the coach attempts to **focus the coachee's attention on their own emotions (rR7)**. Consequently, the coachee becomes more **aware of their emotional state and how it affects their behaviours (develop emotional literacy) (rRM12)**. Thus, they are able to consciously work to **reduce emotional reactivity (rO11)**.*

*(b) when coachees become aware of their emotional state (rRM12), they are given the chance to explore and understand their feelings and **analyse the cause behind them with the coach (rR8)**. This can help the coachee to **understand and accept their emotions (rRM13)**, leading to **improved emotional management (rO12)** and self-regulation (O2).*

Within exploratory coaching conversations, the coach can accentuate the coachee's emotional state and establish links about how emotions (rR7) impact behaviours. Two resources are introduced here; the first is fostering the coachee's emotional awareness (rR7) and the second is providing an opportunity to analyse the coachee's emotions within coaching conversations (rR8). The emotional awareness forms the basis of the coachee's emotional literacy (rRM12) which can then pave the road for coachees to opt for reducing emotional reactivity (rO11). Further, it can make way for the coachee to reason their emotional state, which allows them to recognise, understand and accept their emotions (rRM13). Coachees can then yield benefits from reduced emotional reactivity (rO11), as affirmed by one of the participants saying: "It made me less reactive and at times calmer and less triggered to react." (Interview 3, 560 – 561). This also includes enhanced emotional handling (rO12) and improved self-regulation. In sum, this refinement theorises that self-regulation is primarily moderated through developing awareness of one's emotional state, reasoning this emotional state, understanding, and accepting emotions, which then facilitates abating emotional intensity and thus makes self-regulation easier.

Refined CMO 2.2 – Upon achieving awareness, the coach can proceed with introducing new self-directed mental techniques. The coach needs to **explain thoroughly how to implement new techniques and the purpose of using them** (rR9) in the context of the issues being tackled within coaching. Otherwise, the coachee will not be able to see the **relevance** (rRM10) and utility of these techniques, leading to **ignoring them or practising them incorrectly** (rO13) and thus defying their purpose. Additionally, the coach might resort to **trial and error** (rR10) to assert utility by getting the coachee's feedback on the most effective technique factoring in individual differences (rC3).

A significant refinement was made regarding the utility of self-directed mental techniques such as psychoeducation, practising gratitude and relaxation techniques. Empirical evidence did not validate the provisional claim of such techniques being generally effective in reducing emotional reactivity compared to fostering coachees' awareness (rR7) and reasoning (rR8). One significant factor in introducing such techniques effectively is using them purposefully to address a specific issue that is well explained and recognised by the coachee (rR9). Otherwise, the coach risks the coachee's disengagement and ignoring the exercise (rO13). As an example, one participant reported not returning to their sessions, in previous experiences, after being assigned tasks, such as reading a book (psychoeducation), and breathing or walking (relaxation techniques) without an explanation of their utility for her or why they might be useful (Interview 6, 415). The other factor is explaining thoroughly how each technique is to be implemented (rR9) to avoid any adverse impacts of incorrect practice (rO13). For instance, another participant reported listening to a sleeping meditation track while driving as she was unaware it was intended to enhance sleep quality (Interview 7, 265-267). Hence, it is inferred that one of the main reasoning mechanisms elicited for self-directed mental techniques to be effective is the coachee's ability to understand its utility and see its relevance (rR11) within the context of the coaching conversation, i.e. how this technique might help them achieve a specific purpose. Finally, concerning self-directed mental techniques, they cannot be regarded as a one-size-fits-all strategy. Thus, the coach might need to resort to trial and error (rR10), relying on feedback from the coachee to determine what will be most effective in their case. For example, when one of the participants reported that meditation did not work for them, the coach needed to find an alternative strategy to help the coachee (Interview 1, 862-864). Consequently, individual differences and preferences (rC3) are an important contextual factor to consider here. Further quotes with causal insights from the data and the refinements are presented in Table 10 below.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO 2 - When coachees, who are self-reflective (C1) as well as ready and motivated for change (C2), practice self-directed mental techniques for emotional management (R2) in CBC coaching sessions, it helps them learn to decrease their emotional reactivity, thus enhance self-regulation (O2) accordingly. This allows better use of cognitive resources for goal attainment.</p>	<p>Refined CMO 2.1 (a) – when coachees engage in coaching conversations for exploration (PS1), the coach attempts to focus the coachee’s attention on their own emotions (rR7). Consequently, the coachee becomes more aware of their emotional state and how it affects their behaviours (develop emotional literacy) (rRM12). Thus, they are able to consciously work to reduce emotional reactivity (rO11).</p>	<p><i>“I realised that a significant portion of my time would be wasted on feeling bad that in a situation I prioritised work ...” - (Appendix 15, interview 7, 292 - 293)</i> <i>“Now, I know that there is something called priority ... in similar situations. So, I won’t feel bad again which when I did adversely impacted my performance” - (Interview 7, 445 – 448)</i></p> <p><i>“For example, when it comes to work, there used to be situations that affected me negatively. But now, I overcome those situations, which enhanced my performance. I’m no longer constantly feeling bad or negative.” – (Interview 5, 774 – 776)</i></p> <p><i>“I always tried to separate my emotions from my behaviour, and it helped me to listen to my emotions more” – (Interview 2, 593 – 594)</i></p>
	<p>Refined CMO 2.1 (b) – when coachees become aware of their emotional state (rRM12) they are given the chance to explore and reason their state with the coach (rR8). This can help the coachee to further understand and accept their emotions (rRM13), leading to improved emotional handling (rO12) and self-regulation (O2).</p>	<p><i>“Of course, not everyone knows how to apply these things. At times, our emotions overpower our logical thinking or rationalisation. That’s what I’m still trying to... I won’t say control ... but rather understand and accept.” – (Interview 6, 845 – 847)</i></p> <p><i>“It means sitting with myself in that self-space (the coaching session or self-reflection time), thinking about what happened, ... When I got angry, was it right? Did the situation require me to feel so? when I got upset? Was it worth it? ... Why is this useful? So that when these situations reoccur or something similar happens, I can them make the right decision, a decision that won’t make me regret anything afterwards” – (Interview 7, 98 – 103)</i></p> <p><i>“For example, I used to be extremely impatient, this made triggering me very easy. So, I started to think about what makes me calm down completely. As a result, when I am outside with a customer, I will remain calm, and no one will be able to trigger me.” - (Interview 4, 114 – 116)</i></p>

	<p>Refined CMO 2.2 – Upon achieving awareness, the coach can proceed with introducing new self-directed mental techniques. The coach needs to explain thoroughly how to implement new techniques and the purpose of using them (rR9) in the context of the issues being tackled within coaching. Otherwise, the coachee will not be able to see the relevance (rRM10) and utility of these techniques, leading to ignoring them or practising them incorrectly (rO13) and thus defying their purpose. Additionally, the coach might resort to trial and error (rR10) to assert utility by getting coachees’ feedback on the most effective technique factoring in individual differences (rC3).</p>	<p><i>“One therapist once told me to read a book and take a walk, but I didn’t go back to them honestly.” (Interview 6, 417)</i></p> <p><i>“One time there was this meditation track that I couldn’t find time for ... So, I said I would listen to it while driving, as it is the only time I get for myself, I almost fell asleep! When I told the coach, she got really alarmed and told me not to do so as it’s a sleeping meditation track.” (Interview 7, 265-267)</i></p> <p><i>“She tried to help, by giving me resources. She suggested a meditation video for me because my sleep is very disturbed. But it failed. Interviewer: Meditation didn’t work for you? Interviewee: Not at all. The one she recommended was horrifying. I told her it was a failure.” - (Interview 1, 857-860)</i></p> <p><i>“Our readiness as people was different... Our readiness to talk or listen to someone or think about what’s being said and try to apply and implement it.” - (Interview 1, 608-609)</i></p>
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Table 10: CMO 2 Refinements

CMO 3 - Coaching Conversations for Cognitive Re-orientation

This CMO aims to detail another cognitive-related PS and discuss the refinements related to coaching conversations for cognitive reorientation, as presented in Table 11. The provisional CMO postulates a ripple effect from CMO 1. It discusses how coachees who were able to identify psychological blocks can proceed with their coaching journey through challenging thinking biases and irrational beliefs to be able to replace them. This leads coachees to engage in positive and pathway thinking, resulting in better decision-making and stress reduction accordingly. However, there was no empirical evidence supporting hope theory and the increase of hope as an output of this process as provisionally configured (Green et al., 2006). Also, this CMO is contextualised within the previously configured contexts of readiness to admit problems (rC1) and willingness to open up and share (rC2). Other contextual factors here include the coach's qualification and ability to construct influential conversations (rC4).

*Refined CMO 3.1 (a) – Upon identification of key issues and psychological blocks (rO1 → rC), the coach tends to use cognitive re-orientation techniques (PS3) to challenge thinking biases and irrational beliefs (R3) using evidence and arguments that need to be perceived as rational to the coachee. This puts the coachee in a position to test the validity and utility of their own thoughts. If the coachees feel like the conversation is **relevant and relatable** (rRM10) to their situation and **are convinced** (rRM14) that they **need to change their default mindset** (rO14), they **proactively** engage in **resolving thought inaccuracies** (rO15) and normalising negative thoughts. This can then lead to better performance (DO1) eventually. This CMO is mediated by the coach's **qualification, knowledge, and ability to construct influential conversations** as a context (rC4)*

*(b) – if the **coach fails to pin down the right points** (rR11) for the coachee **to relate to or see the relevance** (rRM10) of the questions and the conversation to their situation, this might result in confusion and building **resistance** (rO7) on the coachee's behalf, leading to **disengagement** (rO6). This CMO is also mediated by the **coach's qualifications, knowledge, and ability to construct influential conversations** as a context (rC4)*

The data support the provisional CMO explaining how, by rigorously confronting irrational beliefs and thinking biases, the coach can influence the coachee to test their thoughts' validity and utility. This challenging of thoughts can be done in the form of questioning and associating undesired

consequences with irrational thoughts and beliefs. Such validity checks drive the coachees to address cognitive inaccuracies (rO15) with the coach to resolve biases and normalise their thoughts. Also, it triggers the coachee's need to change their mindset (rO14) as they are now conscious of it being problematic. Consequently, an urge on the coachee's behalf is created to work proactively with the coach to untie all connections to the impractical thoughts and beliefs identified, making the creation of this need to change (rO14) the first refinement to this CMO.

Further, the CMO is refined to incorporate a mechanism without which further outcomes might not be cultivated. The coachees need to be fully convinced (rRM14) with the arguments presented to them by the coach to feel that what is being said is relevant and relatable (rRM10) to their own experiences, and thus accept it and become willing to act in a way which is consistent with these alternative views. This issue was presented by one of the participants who thought coaching in this sense was not helpful; she said: "I understood her (the coach's) explanation and was convinced to a large extent. But I don't want to be that person. I feel it's a good thing for someone to prioritise others over themselves. I don't want to move to the other side." (Interview 1, 319 – 321) Thus, the coach's qualification and ability to construct an influential argument (rC4) is an important contextual factor. Influential arguments refer to conversations that can convince the coachee of their need for a mindset change without any intention to influence or manipulate their opinions or conclusions towards a certain direction. This emphasises the importance of careful and divergent navigation of the coachee's entire cognitive schema (rR2) during the previous exploration phase (as refined in CMO 1.1(c)) to gather enough information for argument construction. Accurate exploration allows the coach to distil the vital thoughts or beliefs to be challenged and allows the coach to construct a solid argument against the coachee's precisely elicited limiting beliefs and thinking biases without erroneous assumptions or rushing to conclusions. In sum, this refinement considers the manifestation of the coach's qualification, knowledge, and ability to construct influential conversations and guide the coachee's thought process as a context to generate intended outcomes (rC4). If the coach fails to pin down (rR11) and hit the right points to persuade the coachee, it can result in the conversation feeling irrelevant (rRM10) to the coachee. Hence, the coachee might react with resistance (rO7) which might bring about feelings of disengagement (rO6) and confusion at times.

Refined CMO 3.2 – *when coachees with the need to change their default mindset (rO14 → rC), engage in coaching conversations intended by the coach for gradual cognitive restructuring (PS3), they are provided with a space to **brainstorm on alternative thoughts***

*(rR12) that are more valid and useful to them. Engaging in these conversations helps **reframe coachees' perspectives** (rO4). This process includes engaging in positive thinking (RM5), actively replacing irrational beliefs, and clearing thinking biases (RM4). As a result, the coachees acquire a **more adaptive balanced way of thinking** (rO16) with a new effective outlook that is constructive, balanced, and self-enhancing. Consequently, coachees experience positive emotional change (O4). Also, this new way of thinking eventually contributes to better decision-making (O3) for problem-solving, goal striving (O7), and stress reduction (O5).*

Upon triggering the coachee's need for change, it becomes an important context for further refinements. When this need is triggered, the coach aims to start a process of gradual cognitive restructuring (RM4). As part of this process, introducing resources, such as brainstorming for alternative thoughts (rR12), can help reframe the coachee's perspective to a healthier, more effective one. This mechanism is evident in this quote: "I had to squeeze my brain, to come up with an alternative thought or something ... When I squeeze my brain and come up with alternative thoughts, this is what changed the outcome of the situation. So, it's like we identified all my issues, and we need to explore how these issues can be solved from my point of view." (Interview 4, 150, 184-186). Reframing includes fostering positive thinking (RM5) to generate better ideas that can help combat thinking biases and irrational beliefs (RM4). Such changes then construct a more adaptive and balanced way of thinking (rO16) as an outcome bringing about positive emotional change (O4). Developing adaptive ways of thinking also contributes to enhanced problem-solving and decision-making skills (O3). This is evident in the following participant quote: "Of course, it (the sessions) made me very positive and more productive" (Interview 7, 459). Being the final step in the cognitive process, it can be proclaimed that the coachee becomes ready for goal initiation and striving (O7). Reaching this stage was also expected to decompress the accumulated stress (O6) and negativity carried forward from the previous phases as the coachees are able to generate ideas and find solutions to approach the problems identified earlier and thus can have a new effective outlook to see a way forward to their goal.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO3 - When coachees who identified their thinking biases and irrational beliefs challenge those irrational beliefs through cognitive re-orientation techniques (R3) such as reframing, immersion, visualisation, gradual restructuring, checking for assumptions and dealing with inaccuracies and normalising thoughts, they can replace their limiting beliefs and negative thinking patterns (RM4) and engage in more positive thinking (RM5), as well as pathway and agency thinking (RM6). This leads to better decisions (O3) that are based on facts rather than rigid beliefs, positive emotional change (O4), reduced stress (O5), increased hope (O6) and goal striving (O7). Thus, the enhancement of well-being (DO2) and goal attainment (DO1) accordingly</p>	<p>Refined CMO 3.1 (a) – Upon identification of key issues and psychological blocks (rO1 → rC), the coach tends to use cognitive re-orientation techniques (PS3) to challenge thinking biases and irrational beliefs (R3) using evidence and arguments that need to be perceived as rational to the coachee. This puts the coachee in a position to test the validity and utility of their thoughts. If the coachees feel like the conversation is relevant and relatable (rRM10) to their situation and are convinced (rRM14) that they need to change their default mindset (rO14), they proactively engage in resolving thought inaccuracies (rO15) and normalising negative thoughts. This can then lead to better performance (DO1) eventually. This CMO is mediated by the coach’s qualification, knowledge, and ability to construct influential conversations as a context (rC4)</p>	<p><i>“There were a few, maybe three or four (identified cognitive errors), that were very crystal clear. I said to myself that I would focus on them later in situations, but at the moment, I am still defaulted to my default mindset. Maybe later on, I’ll have thoughts like ‘No, that’s not right’ but I’m not doing it automatically yet. No, I’m not sure.” - (Interview 1, 140 – 143)</i></p> <p><i>“But with a coach, I’m thinking about my behaviour and whether I should alter it in any way and why. I became more convinced that maybe this would work. It’s like a thinking journey; no one is dictating anything to me in that sense.” - (Interview 6, 743 – 746)</i></p> <p><i>“I feel that with some effort if I’m the one who reaches these conclusions without someone telling me exactly what to do. They help me think, and I reach a conviction on my own. I become more committed to implementing it” - (Interview 6, 726 – 728)</i></p> <p><i>“Well, the coach’s approach was a bit challenging. As you mentioned before, she would challenge thoughts and try to prove to me one way or another that things might not be as I perceived them or that there might be a problem.” - (Interview 2, 425 – 427)</i></p>
	<p>Refined CMO 3.1 (b) – if the coach fails to pin down the right points (rR11) for the coachee to relate to or see the relevance (rRM10) of the questions and the conversation to their situation, this might result in confusion and building resistance (rO7) on the coachee’s</p>	<p><i>“Definitely it has to do with the coach. Whether it’s the coach’s decision to not contribute to this discussion to probe the solution out of the coachee. But if the coach is not doing so deliberately then there must be a lack of knowledge. If the coach is not intentionally withholding guidance, then there must be something missing” – (Interview 3, 308-311)</i></p>

	<p>behalf, leading to disengagement (rO6). This CMO is mediated by the coach's qualification, knowledge, and ability to construct influential conversations as a context (rC4)</p>	<p><i>"No, it's not that I felt the topic was personal or anything like that. The issue was that sometimes the topic was just not relevant to me." – (Interview 3, 408-409)</i></p> <p><i>"Sometimes, I felt that the examples I received were not very relatable and didn't convey the meaning we needed." - (Interview 3, 366 – 367)</i></p> <p><i>"yes, exactly if we knew how to highlight those things that we really need to talk about without deviations or going off-topic" - (Interview 3, 480 – 481)</i></p>
	<p>Refined CMO 3.2 – when coachees with the need to change their default mindset (rO14 → rC), engage in coaching conversations intended by the coach for gradual cognitive restructuring (RM4), they are provided with a space to brainstorm on alternative thoughts (rR12) that are more valid and useful to them. Engaging in these conversations helps reframe coachees' perspectives (rO4). This process includes engaging in positive thinking (RM5), actively replacing irrational beliefs, and clearing thinking biases (RM4). As a result, the coachees acquire a more adaptive balanced way of thinking (rO16) with a new effective outlook that is constructive, balanced, and self-enhancing. Consequently, coachees experience positive emotional change (O4). Also, this new way of thinking eventually contributes to better decision-making (O3) for problem-</p>	<p><i>"Interviewer: Did the programme bring about any positive emotional changes? Interviewee: Yes, it did because I would feel better when facing new situations." - (Interview 5, 604 – 605)</i></p> <p><i>"Switching my mindset from negativity, not necessarily to positivity but at least to not negativity. This would allow me to remain calm. That was another outcome." - (Interview 4, 50 – 51)</i></p> <p><i>"So, the session outcomes I mentioned did contribute in making me achieve my goals, to focus on the different life aspects in a more systematic way." - (Interview 7, 161 – 163)</i></p> <p><i>"Interviewee: To learn to say no, and to try to give everything its true value/size to know what the priorities are and how to manage things without over or under-valuing them.</i> <i>Interviewer: Alright, and do you feel that your sessions helped you reach this balance? Interviewee: Yes, very much especially towards the end. I was very relaxed." - (Interview 7, 114 – 115)</i></p> <p><i>"Yes, a positive mindset that will help me at the end with my thoughts and decisions that I will make accordingly, this will keep me from thinking negatively or continue feeling bad all the time after an incident." - (Interview 5, 599 – 601)</i></p>

	solving, goal striving (O7), and stress reduction (O5).	
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Table 11: CMO 3 Refinements

Behavioural Aspects

CMO 4 - Behavioural Experiments

Moving on to the behavioural part of the programme refinements that are presented in Table 12, and primarily emphasises the coachee's engagement in practical behavioural experiments or exercises as part of the programme strategy. The fine-tuning of this CMO mainly targeted unpacking three aspects concerning the set-up and implementation of a behavioural experiment within the CBC context. Refinement 4.1 (a) concerns the behavioural experiments and their design. Refinement 4.1 (b) focuses on the explicit aim of the experiment and the feasibility checks carried out for the coachee to be able to proceed with it outside the session timing. Refinement 4.2 acknowledges the importance of self-reflection as a resource at this stage.

*Refined CMO 4.1 – (a) As part of the coaching experience, both the coach and coachee engage in designing behavioural experiments to be carried out by the coachee (PS4). The behavioural experiments encompass **tangible actions and practical exercises** (rR13) with the aim of reality-testing new thoughts (RM7). Consequently, coachees can validate the utility of their new thoughts which can help them **integrate these new thoughts into their default mindset** (rO17). It also **reinforces behavioural adjustments** (rO18) when the coachee experiences the positive impact of the replaced thoughts. This process is moderated by the coachee having the ability to invest time and effort to complete an experiment (rC5) outside coaching sessions.*

This refinement is theorised by one participant as: “to be honest a coaching session might be good but the timing and the context around it do not help it be as effective as it should. When it coincides that ... you encounter the same case you discussed within your session, that’s when one strongly links or pays attention to what was discussed. After all, there are a lot of inputs in one session.” (Interview 3, 282 – 286). According to participants, coaching conversations were most effective when coincidentally followed by a relevant real-life event. It allowed the coachees to view and assess the differences in thinking and behaviour in pre- and post-coaching conversations. As a result, the conversations and exercises become relatable and memorable to coachees, and the conclusions reached during the sessions become more admissible. Therefore, designing a behavioural experiment (PS4) to be carried out by the coachee can be regarded as deliberately exposing them to similar experiences instead of waiting for them to occur by chance. One participant reported: “there weren't obligations, but it was more about trying out the approach and seeing if it works for me. It was more like experimenting with myself” (Interview 6, 707 – 708). These findings align with the provisional CMO in theorising that through these experiments the stage is set for the coachee to reality test their newly acquired awareness and thoughts through tangible actions and practical

exercises (rR13). These deliberate exercises grant the coachee an opportunity to validate and evaluate their new perspectives in real-life contexts. The success of these attempts is contextually conditional on the coachee's ability to invest time and effort (rC5) to carry them out outside coaching sessions.

Refined CMO 4.1 – (b) *For behavioural experiments to be effective, the coach needs to ensure that the coachee is able to see its purpose clearly. Thus, the coach needs to perform **quality and feasibility checks** (rR14) to ensure the experiments are viewed as **reasonable, practicable and purposeful** (rRM15) by the coachee. If the coachee is able to have this **sense of purpose** (rRM15) and can see the **relevance** (rRM10) of the experiment being designed, they will have **motivation for action** (rO19) and become eager to carry it out to see the results. Consequently, it is more likely that the **experiment will be completed as planned** (rO20).*

*In cases where the coachee is not able to see the experiment's purpose or **applicability in complex real-life situations** (rRM15), they will fail to see the purpose or validate the experiment's utility and thus will not be able to **integrate** or transfer **new thoughts and behaviour to default mindset** (rO17).*

At this stage, efforts were made to ensure the coachee was able to convert their new adaptive thinking and yield its benefit through constructive behaviours. Relatability and relevance (rRM10) as reasoning mechanisms play an important role here. Given the collaborative nature of this exercise, the coach's contribution is essential for the success of the process of defining behavioural experiments. First, the coach is responsible for applying applicability and feasibility checks (rR14) to ensure that the devised experiment is feasible and that it fits the purpose of examining new and replaced thoughts. Second, it is also crucial for the coach to ensure that the coachee can see the purpose (rRM15) and benefits of the experiment and what it is set out to test. Failure to do so might leave the coachee feeling stuck with conceptual awareness that is not practically applicable or beneficial. Nevertheless, some coachees drew attention to the fact that while conducting these experiments they are conscious and prepared for it: "but I can conduct those experiments while being conscious that I am just experimenting. But the question is how after trying the experiment, can one determine whether I have been convinced ... we experimented, and it went fine. Now, I want it to become my default reaction in similar situations. It's not just an experiment anymore." (Interview 1, 336 – 342). Thus, such experiments do not accurately resemble complex real-life situations when coachees are less likely to be prepared, conscious or fully determinant about their behaviours. Thus, performing them successfully does not guarantee the effective integration of outcomes to their

default mindset (rO17). Hence, additional resource mechanisms might be needed so that new learnt behaviour becomes automatic as discussed in the following refinement.

Refined CMO 4.1 – (c) *Upon successful completion of an experiment, an additional element of **practice** (rR15) might need to be introduced to support the **integration of new thoughts and behaviour** (rO17) successfully later on in complex real-life situations.*

In situations, the coachee is able to automatically integrate newly acquired thoughts and behaviours into their daily routines after experiencing the benefits and positive affects post the experiment. Nevertheless, in more complex situations, two coaching resources are needed to facilitate integration (rO17). The first is advocating daily exercises and practice (rR13). It is assumed that, with practice, these new thoughts and behaviours are to be integrated into the coachee's default mindset. This is affirmed by one of the participants saying: “after some time through practice, in similar situations, the alternative thoughts start popping into one’s mind in the situation.” (Interview 8, 297-299). The second resource that was found to help with integration is associating a new behaviour with the coachee's goal plan, through goal-directed action planning as discussed in CMO 5.

Refined CMO 4.2 – Coachees’ performance in the designed experiments is **reflected upon as part of the coaching conversations** (R1). These self-reflections allow the identification of any performance blocks (RM8) as well as the discovery of other counterproductive behaviours. This conversation also allows the coachee to generate ideas proactively to resolve issues for the **successful completion of the experiment** (rO20). As a result, the coachee is able to carry out new productive behaviours (O8).

Data also acknowledge the role of reflection (R1) as a resource at this stage. Any issues encountered during experiments are brought back to the session for the coachee to reflect (R1) upon conjointly with the coach. This was evident through the experience of one of the participants who reported several failures in their experiment until they were able to achieve it as they “reflected and found it is really working, it is beneficial”- (Interview 7, 406 – 409). Reflecting on these experiments and trials permits the proposal of any behavioural adjustments needed to improve the experience. Performance blocks (RM8) can also be identified for the coachees to generate proactive positive ideas in their attempt to tackle any performance blocks and complete the experiment successfully (rO20). Ultimately, the coachees become able to apply and translate newly acquired thoughts into action successfully then continue with goal striving afterwards.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO4 - During CBC, coachees can be exposed to behavioural experiments (R4), experience reality testing of replaced beliefs (RM7), and identify performance blocks and counterproductive behaviours (RM8), which allows them to construct new strategies and productive behaviours (O8).</p>	<p>Refined CMO 4.1 (a) – As part of the coaching experience, both the coach and the coachee engage in designing behavioural experiments to be carried out by the coachee (PS4). The behavioural experiments encompass tangible actions and practical exercises (rR13) to reality test new thoughts (RM7). The coachee is then able to validate the utility of their new thoughts which can help integrate new thoughts and behaviours in default mindset (rO17) as well as reinforce behavioural adjustments (rO18) due to replaced thoughts. This process is directed by the coachee having the ability to invest time and effort in an experiment (rC5)</p>	<p><i>“Absolutely, instead of reacting naturally in situations and then feeling like what was that why did I react this way? With these experiments I intentionally act in a certain way, that I have previously thought about, to check if it will work or not.” - (Interview 5, 624 – 626)</i></p> <p><i>“But in the end, I didn't come up with a solid solution that I needed to do x, y, z or need to train myself using a certain method to switch my thinking from X to Y. I know that I should remove X and adopt Y ... now, how do I actually do it? Think differently. Yes, if I knew how to think differently, I would have already done it” - (Interview 1, 272 – 276)</i></p> <p><i>“Interviewer: Okay, what was hindering you in the beginning? Interviewee: Life had enough things going on to take on a new task.” - (Interview 7, 287)</i></p>
	<p>Refined CMO 4.1 (b) – For behavioural experiments to be effective, the coach needs to perform quality and feasibility checks (rR14) to ensure the experiments are reasonable and practicable to the coachee and are purposeful (rRM15). The coach needs to ensure that the coachee is able to see its purpose clearly. If the coachee is able to have this sense of purpose (rRM15) and can see the relevance (rRM10) of the experiment being designed, they will have motivation for action (rO19) and become excited to carry it out to see the results. Consequently, it</p>	<p><i>“Yes, it was one session, and I really thought the coach needed to help me with finding a situation to perform the experiment. I gave up at the end and I told her fine my experiment will be cleaning my laptop’s desktop which was yes, an issue but we could have taken this in a better direction. Interviewer: Are you not convinced with this experiment? Interviewee: I am convinced but it felt like we could have given it more time and tried to make it better.” - (Interview 3, 565- 571)</i></p> <p><i>“When I'm in a situation, as soon as the situation arises, you automatically react with your default mindset. So, to</i></p>

	<p>is more likely that the experiment will be completed as planned (rO20).</p> <p>In cases where the coachee is not able to see the experiment's purpose or applicability in complex real-life situations (rRM15), they will fail to see the purpose or validate the experiment's utility and will not be able to integrate or transfer new thoughts and behaviour to default mindset (rO17).</p> <p>Refined CMO 4.1 (c) – Upon successful completion of the experiment an additional resource, of practice (rR15) might need to be introduced to support the integration of new thoughts and behaviour (rO17) as an outcome in complex real-life situations.</p>	<p><i>be conscious that I'm in this current situation, and that I should pause, step back, and take a couple of minutes to do this exercise to switch my thinking from one perspective to another so ... Interviewer: Was it not feasible for you? Interviewee: No." - (Interview 1, 290 – 295)</i></p> <p><i>"I started to practice those outcomes we reach at the sessions, ... So, when I started working with the outcomes from the session, I was able to do what we agreed on." - (Interview 7, 291 - 295)</i></p> <p><i>"Yes, actually, working on these exercises made my mind and thinking accustomed to them, unlike just doing it once or with simple understanding. When you repeatedly delve into various situations, practice this way of thinking, and follow the same steps, over time it becomes a default. This is how it made a great difference when I started distributing the exercises over more days." - (Interview 5, 243 – 247)</i></p>
	<p>Refined CMO 4.2 – Coachees' performance in the designed experiments is reflected upon as part of the coaching conversations (R1). These self-reflections allow the identification of performance blocks (RM8) as well as the discovery of other counterproductive behaviours. The conversation also allows the coachee to proactively generate ideas for the successful completion of the experiments</p>	<p><i>"I kept failing in my experiment. It involved finding the time to pause to reflect on what happened and what's next. I kept failing until I completed it at the end." - (Interview 7, 277 – 279)</i></p> <p><i>"I am not sure exactly, but when I find myself in a situation that's relevant to what we discussed in the session, especially those that were related to the thinking errors, I relax and reflect calmly, and I start to improve. Over time it</i></p>

	<p>(rO20). As a result, the coachee is able to construct new productive behaviours (O8).</p>	<p><i>feels like this thought process becomes automatic.” - (Interview 3, 530 – 532)</i></p> <p><i>“I felt really good the very next day when I woke up that I was determined and able to stand for what I wanted and do what I want ... Interviewer: Okay, so the behavioural experiment allowed you to say ‘no’ in situations when you want.</i></p> <p><i>Interviewee: Yeah, because I reflected and found it is really working, it is beneficial, when I said ‘no’”- (Interview 7, 406 – 409)</i></p>
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Table 12: CMO 4 Refinements

CMO 5 - Goal Setting

To continue the behavioural journey of CBC, the CMOs in Table 13 are configured to present processes relevant to goal setting. Two main refinements are made for this CMO. Refinement 5.1 focuses on contextualising goal setting and initiation. Refinement 5.2 discusses the importance of proper case conceptualisation at the cognitive stage as well as exploring useful goal characteristics from the beginning to facilitate goal initiation and striving as outcomes.

*Refined CMO 5.1 – SMART goal setting (PS5) is one pillar of the coaching process through which discrepancy between the actual and desired state is created (R6). This discrepancy creates a **sense of purpose** (rRM15) and direction on the coachee's behalf, which then **motivates action** (rO19).*

*Also, creating goal-directed action plans (PS6) provides coachees with clarity by outlining achievable action items. This then facilitates **goal initiation** (rO21), which is fostered under the context of **professional help being offered** (rC6). Additionally, other relevant contextual factors are the **ability to spend time and effort** (rC5) for goal initiation and striving as well as **having the courage** (rC6) to start working on agreed-on goals.*

At coaching initiation, the coachee is prompted to specify challenging goals (R5), as an initial requirement to proceed with case conceptualisation. These goals are also used to direct the entire coaching process. Agreeing with the provisional CMOs, it is theorised that setting goals is originally used to create a discrepancy between the actual and desired state (R6), which helps the establishment of a roadmap towards the coachee's aspirations. Similar to behavioural experiments, goal setting creates a sense of purpose (rRM15) and direction which vitalises the coachee's motivation (rRM20) to commence working on their goals. Hence, coachees are stimulated to direct all their attention, resources, and efforts towards this desired achievement.

Three impactful contextual factors emerged from the data that moderates the aforementioned relationships. First is setting these goals with the perception of having or being offered professional help (rC6) that will provide the needed resources and support to attain goals. Empirical data proposes that having this perception adds to the coachee's sense of purpose and thus motivates them further to initiate (rO21) action towards goals. This refinement is informed by one of the participant's commenting: "Maybe it's because when there was a professional involved, it created a need to help myself, given that all the ways and methodologies are now provided so that motivated me to start"- (Interview 2, 414 – 415)

Second is the coachees entering the coaching experience with ample time and energy (rC5) to dedicate to their goals. The coach will encourage the coachees to prioritise their goal-related activities

as well as offer help by proposing time management strategies when needed. However, it is also acknowledged that, in reality, other responsibilities and commitments constitute a great load on coachees, which might heavily impact their coaching experience. Thus, thought needs to be given to the coachees' ability to situate coaching-related activities among their daily personal routines at the time coaching is offered.

The third contextual factor identified is having the courage (rC7) to approach one's own goal as usually the movement from an actual to a desired state requires individuals to step out of their comfort zones. As a defence mechanism, individuals might respond with excuses to avoid feelings of discomfort resulting from this change. Typically, the coach will attempt to counterargue excuses and tackle any self-handicapping behaviours that might emerge. However, the success of the coach's attempts depends on the extent to which coachees have the courage to proceed with pursuing their goals despite feelings of discomfort. The following quote aided in coding the second and third contextual factors: "I know that I should do it because I am the one who initially set it as a goal, so I understand that. But it required time from me, and I wasn't able to do it during the period we were in the project (before the coaching programme). Also, it required a bit of courage." (Interview 1, 170 – 172).

Refined CMO 5.2 – (a) For goal setting to serve its purpose, it needs to be followed by **proper case conceptualisation** (rR18) for the goals to be accurate (rO22) in terms of being specific, relevant, and relatable (rRM10) to the coachee. It also includes **emphasising the goal's importance** (rR19) to the coachee. These mechanisms then result in elevating the coachee's **sense of ownership** (rRM16) and thus **commitment** (rO23) to the goal, which also adds to the coachee's **motivation for action** (rO19). Proper case conceptualisation relies on the **coach's qualifications** (rC4) and ability to guide the coachee's reflection during exploration conversations.

Proper case conceptualisation (rR18) represents the coach's process to capture precisely the coachee's thoughts, emotions, behaviours, and psychological factors related to the specific life domain in which the coachee is seeking progress. This process aims to ensure that the chosen goal on the coachee's behalf is accurate (rO22) in terms of being specific, relevant (rRM10) and achievable within the determined timeframe. It also entails foregrounding the goal's value and elevating its importance (rR19) to the coachee. This ignites the coachee's sense of ownership (rRM16) and commitment to the goal (rO23), having identified the explored goal as specific, achievable, and important to them. As reported by a participant: "although I already know the importance of the goal, but she (the coach) kept digging into how essential it is, why it's important and how I will be when I

complete it." (Interview 1, 436 – 438). Thus, it fosters coachees' motivation for action (rRM20). This process is reliant on the coach's qualification to guide coachees' reflection and ask the right questions.

Refined CMO 5.2 – (b) Goal setting followed by **goal-directed action planning** (PS6) includes **defining acceptable levels of performance** (rR20) which provides the coachee with **clarity** (rO3) as well as a **sense of competence** (rRM17) that the task at hand is manageable. It also serves as a **benchmark for feedback and monitoring** (rO24)

Following goal setting, the coach plays a role in helping the coachee with dividing their goals into action plans (PS6) with timelines, along with elucidating an acceptable goal metric indicating the acceptable levels of performance (rR20) per each step. This is reflected upon by one of the participant's saying: "I created them myself (the goals), but with the coach's assistance, because I was initially very confused, like with measuring, I did not understand how is this something that can be measured. When I broke it down into steps, it became easier." - (Interview 2, 399 – 401). These serve as a benchmark to base the progress monitoring and feedback (rO24) in the upcoming phase as discussed in CMO 6. It also provides coachees with clarity (rO3) on their next steps as well as a sense of competence (rRM17) due to finding these broken steps more manageable to complete. As an outcome of this process, the coachees become more willing and able to take initiatives towards their goals.

Refined CMO 5.2 – (c) It is important to consider communicating the flexible and **dynamic** (rR21) nature of the goals during the coaching journey. This nurtures a **sense of reassurance** (rRM18) for coachees as it accommodates the **learning and development** (rO25) occurring within the coaching experience.

This CMO is further refined when acknowledging the importance of allowing these goals to be dynamic and flexible (rR21) to change, as highlighted by one of the participants saying: "another thing is the idea of setting goals that you can adjust later during the programme. It's dynamic rather than static. In the beginning, I might choose certain goals, but later, I might not want to work on them anymore or realise that I misunderstood something from the start. That was a good point as well." (Interview 3, 26 – 29) This gives coachees the feeling of reassurance (rRM18) as it firstly allows them to validate their initial understanding of the programme's purpose and choose how to use it as a tool to best help them. It also gives them room to accommodate changes and developments occurring as a result of the coaching process (rO25) itself, eliminating the risk of the coachee feeling stuck. As a result, goals can remain relatable and relevant (rRM10) in the coachee's eyes, which can result in satisfaction and commitment for the coachee.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO5 - During CBC, coachees shall be exposed to goal setting and goal-directed action planning (R5), which creates a discrepancy between the actual and desired state (R6). This discrepancy facilitates self-regulation (RM9), leading to enhanced goal striving (O7) and goal attainment accordingly (DO1).</p>	<p>Refined CMO 5.1 – SMART goal setting (PS5) is one pillar of the coaching process through which discrepancy between the actual and desired state is created (R6). This discrepancy creates a sense of purpose (rRM15) and direction on the coachee’s behalf, which then motivates action (rO19). Also creating goal-directed action plans (PS6) provides coachees’ clarity through outlining achievable action items. This then facilitates goal initiation (rO21). This is fostered under the context of professional help being offered (rC6). Additionally, other relevant contextual factors are the ability to spend time and effort (rC5) as well as having the courage (rC6) to start working on designated goals.</p>	<p><i>“I know that I should do it because I am the one who initially set it as a goal, so I understand that. But it required time from me, and I wasn't able to do it during the period we were in the project (before the coaching programme). Also, it required a bit of courage.” - (Interview 1, 170 – 172)</i></p> <p><i>“Maybe it's because when there was a professional involved, it created a need to help myself, given that all the ways and methodologies are now provided so that motivated me to start”- (Interview 2, 414 – 415)</i></p>
	<p>Refined CMO 5.2 (a) – For goal setting to serve its aim, it needs to rely on proper case conceptualisation (rR18) for the goals to be accurate (rO22) in terms of being specific, relevant, and relatable (rRM10) to the coachee. It also includes emphasising the goal’s importance (rR19) to the coachee. Proper case conceptualisation relies on the coach’s qualification (rC4) and ability to guide the coachee during exploration conversations. It then results in elevating the coachee’s sense of ownership (rRM16) and thus commitment (rO23) to the goal, which also adds to the coachee’s motivation for action (rO19)</p>	<p><i>“It's like she (the coach) reminded me that certain things are necessary and shouldn't be ignored. She emphasised the importance of taking steps.” - (Interview 1, 166 – 168)</i></p> <p><i>“I mean, I might have discovered those points on my own during the first session, but I feel that through our discussion, I discovered them more thoroughly and effectively.”- (Interview 5, 191 – 192)</i></p>
	<p>Refined CMO 5.2 (b) – Goal setting followed by goal-directed action planning (PS6) includes</p>	<p><i>“I created them myself (the goals), but with the coach’s assistance, because I was initially very confused, like with</i></p>

	<p>defining acceptable levels of performance (rR20) which provides the coachee with clarity (rO3) as well as a sense of competence (rRM17) that the task at hand is manageable. It also serves as a benchmark for feedback and monitoring (rO24)</p>	<p><i>measuring, I did not understand how is this something that can be measured. When I broke it down into steps, it became easier." - (Interview 2, 399 – 401)</i></p>
	<p>Refined CMO 5.2 (c) – It is important to consider communicating the flexible and dynamic (rR21) nature of the goals in the coaching journey. This nurtures a sense of reassurance (rRM18) for coachees accommodating the learning and development (rO25) occurring within the coaching journey.</p>	<p><i>"Another thing is the idea of setting goals that you can adjust later during the programme. It's dynamic rather than static. In the beginning, I might choose certain goals, but later, I might not want to work on them anymore or realise that I misunderstood something from the start. That was a good point as well." - (Interview 3, 26 – 29)</i></p>

Table 13: CMO 5 Refinements

Goal Progression Aspect

CMO 6 - Progress Monitoring and Feedback

The goal progression aspect lies at the heart of coaching, striking a balance between coachees' autonomy over their self-development and the coach's guidance during this journey. Hence, it ensures coachees remain active participants in their development by taking ownership of goal initiation and striving. This CMO attempts to unpack the coaching relationship specifically concerning progress tracking. Configurations for this CMO are presented in Table 14 with quotations capturing causal Insights from the data. Refinements concern three main mechanisms for progress monitoring. Refinement 6.1 looks into how follow-ups can serve as reminders that foster self-monitoring and regulations. Refinement 6.2 sees follow-up sessions as a room for commitment renewal, fostering a coachee's sense of responsibility. Refinement 6.3 discusses the mechanisms of providing feedback during the progress monitoring sessions and its impact on the outcome. Details are discussed below.

*Refined CMO 6.1 – During CBC, **periodic follow-ups serve as reminders** (rR22) for the coachees. As they are expected to **report back** to the coach, this activates their **self-monitoring** (rRM19) and **self-evaluation** (rRM20), encouraging **self-directed behavioural adjustments** (rO26) and promoting coachees' self-regulation (O2). Additionally, during the monitoring conversations, the coach highlights previous discussions reminding coachees of the **importance of the goal** (rR19) which serves as a catalyst for progression creating a **sense of urgency** (rRM21) on the coachee's behalf, encouraging **progress continuity and consistency** (rO27).*

This refinement introduces progress monitoring in the form of periodic follow-ups (during the scheduled coaching sessions) which serve as reminders (rR22) of a coachee's commitment to their goals. As evident in this quote by a participant talking about follow-ups: "It feels like when there's a little bit of force or obligation involved, it makes a difference ... Just as a reminder, it's like when someone reminds me of something I already intended to do. If someone reminds me, then I'll do it" (Interview 5, 420 – 426). These reminders activate and foster coachees' self-monitoring (rRM20), knowing that they are expected to report back (rR23) in the upcoming sessions, as also explained by one of the participants: "But because I knew someone would ask me about them, I did them. It's not because I was asked about them, but because I was focused on the fact that someone would ask me" (Interview 1, 109 – 113). Accordingly, self-monitoring is translated to conscious steps and decisions on the coachee's behalf towards goal attainment. Such conscious steps manifest in self-directed behavioural adjustments (rO26) as well as regulated time to stay aligned with the agreed action plan, thus fulfilling one's commitment to the coach. Hence, self-monitoring can be the initial mechanism leading to enhancements in a coachee's self-regulation (O2). The coach also can use this opportunity

to elevate the goal importance through (rR19) reminding coachees of its purpose and value to their development journey. This creates a sense of urgency (rRM27) on the coachee's behalf which fuel's goal striving (O7), progress maintenance and continuity (rO27).

Refined CMO 6.2 – *CBC entails progress monitoring and weekly follow-ups (PS7) at the beginning of each session. This follow-up approach **holds the coachee accountable for the commitments** (rR23) that were made during earlier sessions, which **fosters the coachee's sense of obligation and responsibility** (rRM22).*

*Additionally, each follow-up serves as a **commitment renewal** (rR24) as both parties reflect on goal progression between sessions, **agree on necessary corrective measures**, and plan for **potential relapses and setbacks** (RM10). Both the fostered sense of responsibility (rRM22) and the adoption of a solution-seeking methodology (RM10) can help coachees maintain progress and goal striving (O7) as well as avoid setbacks (relapse prevention) (O9). This can consequently result in stress reduction (O5).*

*This process is mediated by the **coachee's workload at the time period in which the session is taking place** (rC8) as well as the coachee's **ability to spend time and effort** in goal striving (rC5). If the coachee is not able to progress as planned due to other commitments, this can lead to **feeling pressured** (rRM7) and elevated stress (O5).*

It is evidenced that part of the coach's role is to hold the coachees accountable for their commitments (rR23), which is implied by follow-ups and progress monitoring. This commitment fosters a sense of obligation and responsibility (rRM22) on the coachee's behalf to maintain goal striving (O7). As highlighted by one participant: "For me, it wouldn't be good at all to enter the checkpoint (coaching session) saying I haven't done anything. This might be an exceptional case if it was out of my hands, but I won't keep saying that every time." (Interview 5, 440 – 442). Additionally, periodic follow-ups do not serve solely as reminders but also as a window for commitment renewal (rR24). Through reflection, new agreements and amendments to the action plan can be made. Part of the commitment renewal is to ensure the coachee is still interested in progression, as reported by a participant "In cases where I no longer want to do it, even if someone reminds me, I might joke and say I'll do it when I won't." (Interview 5, 422-423).

During the follow-up process, the coach can guide the coachee through insightful questions and providing feedback (which is elaborated on in the following refinement). The coachee can then identify any possible deviations from the plan and thus take precautions and timely re-plan to avoid potential setbacks (RM10). This can also help the coachee establish proper coping mechanisms, with

the coach's guidance. Further, it nurtures the coachee's solution-seeking mentality (RM11). As an outcome, the coachee cannot only prevent relapses or setbacks but also experience enhancements in their problem-solving skills. Thus, being equipped with coping mechanisms and prepared for hardships, coachees experience stress reduction (O5).

Nevertheless, it is important to keep in mind that this process is impacted by the coachee's workload (rC5) outside of coaching as well as their sense of stability and capability to exert time and effort (rC5) towards progress. In cases when the coachees are not able to move in the desired direction due to contextual limitations, such as workload, the coachee will be left feeling stuck, incapable of engaging with coaching, and pressured (rRM7), which can diminish their satisfaction and increase the stress that can lead to burnout.

*Refined CMO 6.3 – (a) During CBC progress monitoring, the coach gets the chance to give **constructive feedback (R7)** based on actual progress reported. This is done mainly in the form of guided self-reflection (R1) along with **counter-arguing any self-provided excuses (rR25)**. Feedback aids the coachee to gain a realistic view (**reality test**) (RM7) of the degree to which the goal evaluation standards are met. This triggers coachees' **self-awareness (RM1)** and **self-evaluation (rRM20)** as well as gives them insights on the **pitfalls and points of improvement (rRM23)**. As a result, the coachee is able to **identify and remove productivity blocks** (impediments to goal achievements) (RM8), enhance self-regulation (O2) and experience **constant learning and improvement (rO28)**.*

During follow-ups, feedback has a crucial role in guiding behavioural changes and supporting ongoing cognitive restructuring. This refinement focuses on constructive feedback given by the coach in the form of a guided reflection conversation discussing the coachee's past performance (R7). Through this conversation, the coachees unpack their own perceptions of their effort and acquire a realistic view of it, as feedback adds an external perspective which can be seen as useful content to the progress monitoring process. Also, coachees can gain insight into the degree to which the performance standards were met and also investigate the points of improvement and potential pitfalls (rRM23). Adding this external perspective fosters not only awareness, self-regulation, motivation, striving and continuity (rO28) but also ensures constant learning and improvement (rO28). Further, through feedback, the coach can counter-argue any self-provided excuses (rR25) the coachee brings to the session that hinder goal striving. This can prompt the coachees to reconsider their own perspectives and activate their self-evaluation (rRM20). Consequently, the coachees are persuaded to tackle identified productivity blocks (RM8) to re-align with their goals which improves their self-regulation (O2) accordingly.

*Refined CMO 6.3 – (b) Another contribution is giving **positive feedback (rR26)**, acknowledging the efforts of the coachee, highlighting incremental improvements, and providing **encouragement**. This nurtures the coachee's **sense of accomplishment (rRM24)**, serving as **positive reinforcement (rO29)** and resulting in **motivation for further action (rO19)** leading to progress maintenance and goal striving (O7). It is worth noting that **authenticity (rRM25)** is a key reasoning mechanism for encouragement to yield its outcomes.*

Furthermore, feedback can also be a resource to advocate the coaching strength-based approach by giving positive feedback (rR26), encouraging, and emphasising a coachee's successes. As the coachee's attention is drawn to the incremental improvements in their performance, a sense of accomplishment (rRM24) is cultivated. As a result, the coachee's positive behaviours are reinforced (rO29) which again fuels their motivation (rO19). Nevertheless, it is crucial to indicate the success of positive feedback as a resource relies on the coachee's perceptions of authenticity (rRM25). If the coach fails to deliver this feedback in a way that is rendered authentic and genuine by the coachee, it might lose its significance and thus inhibit the potential outcomes. This was coded in light of one of the participant's reflections on the coach's feedback: "I know that she's not faking it... but she will sit with the other 10 cases, and she will motivate them all... in the end, we're in a coaching session, and she's the coach, and I'm the case" (Interview 1, 456 – 460). It is also worth noting that no empirical evidence was linked to the previous theorising of positive feedback leading to decreased incentive in performance.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO 6 - When employees engage in monitoring their progress and feedback exercises (R7) with their coach (through tools such as task assignment record homework and self-reflection within the session), it assists in identifying performance blocks (RM8), facilitating self-regulation (RM9) as well as develop maintenance strategies (RM10) that ensures continuity and prevent relapses (O9) thus not only ensures the continuity of goal striving (O7) but also enhances performance accordingly (DO1).</p>	<p>Refined CMO 6.1 – During CBC periodic follow-ups serve as reminders (rR22) for the coachees. As they are expected to report back to the coach, this activates their self-monitoring (rRM19) and self-evaluation (rRM20), encouraging self-directed behavioural adjustments (rO26) and promoting coachees’ self-regulation (O2). Additionally, during the monitoring conversations, the coach highlights previous discussions reminding coachees of the importance of the goal (rR19) which serves as a catalyst for progression creating a sense of urgency (rRM21) on the coachee’s behalf, encouraging progress continuity and consistency (rO27).</p>	<p>“Well, if someone follows up with you every week... there were things that, if I were alone, I might have ignored or skipped because I felt lazy. But because I knew someone would ask me about them, I did them. It's not because I was asked about them, but because I was focused on the fact that someone would ask me. There were things that I might have neglected if I were on my own because I felt busy.” - (Interview 1, 109 – 113)</p> <p>“Interviewee: let me tell you, it feels like when there's a little bit of force or obligation involved, it makes a difference... Interviewer: So, the ‘force’ aspect you mentioned, how does it make a difference? Interviewee: Just as a reminder, it's like when someone reminds me of something I already intended to do. If someone reminds me, then I'll do it. Except in cases where I no longer want to do it, even if someone reminds me, I might even joke and say I'll do it when I won't.” - (Interview 5, 420 – 426)</p> <p>“It was the first time I tried to set percentages for my goals, to measure how far I was progressing in certain areas. I started focusing more on myself between sessions (Self-Monitoring), trying to give myself a sense of accomplishment. I didn't just write my goals down and leave them aside. I would reassess regularly if I was actually implementing the things we discussed in the sessions or not (Self-Evaluation). It was a nice experience.” - (Interview 6, 786 – 790)</p> <p>“Interviewer: What were the things in this programme that helped you with goal striving the most? Interviewee: The part I mentioned earlier, the follow-up, as it made me focus on wanting to do and report progress or something different for the upcoming week. Encouragement, that the coach</p>

		<p>motivates me to do certain things or the opposite when she reminds me of the commitment, I made to her if I'm slacking off. Like, didn't we agree on it and so on? Interviewer: And what did the encouragement and motivation make you feel/do? Interviewee: Like any encouragement and motivation... that I needed to take action." - (Interview 1, 432 – 444)</p>
	<p>Refined CMO 6.2 – CBC entails progress monitoring and weekly follow-up (PS7) at the beginning of each session. This follow-up approach holds the coachee accountable to the commitments (rR23) that were made during the session fostering the coachee's sense of obligation and responsibility (rRM22). Additionally, each follow-up serves as commitment renewal (rR24) as both parties reflect on goal progression between sessions and agree on necessary corrective measures and plan for potential relapses (RM10), adopting a solution-seeking methodology to maintain progress and goal striving (O7) as well as ensure relapse prevention (O9). This also results in stress reduction (O5)</p> <p>This process is mediated via the coachee's workload at the time of the session (rC8) as well as the coachee's ability to spend time and effort at this stage (rC5). If the coachee is not able to progress as planned this can lead to feeling pressured (rRM7) and elevate stress (O5).</p>	<p>"For me, it wouldn't be good at all to enter the checkpoint (coaching session) saying I haven't done anything. This might be an exceptional case if it was out of my hands, but I won't keep saying that every time." (Interview 5, 440 – 442)</p> <p>"Well, I usually have a lot going on, and sometimes I forget, or it (goal striving activities) slips my mind unintentionally" (Interview 5, 399 – 400)</p>
	<p>Refined CMO 6.3 (a) – During CBC progress monitoring, the coach gets the chance to give constructive feedback (R7) based on actual progress reported, mainly in the form of guided self-reflection (R1) and counter-arguing any self-provided excuses (rR25). This aids the coachee to gain a realistic view (Reality test) (RM7) of the degree to which the</p>	<p>"Interviewer: You mean she (the coach) counterargues the justifications that you thought were stopping you? Interviewee: Exactly. She appreciated my reasons and everything, but she didn't see it as a justification to delay taking that step." - (Interview 1, 199 – 201)</p>

	<p>goal evaluation standards are met. This triggers the coachee’s self-awareness (RM1) and self-evaluation (rRM20) as well as reflection on the pitfalls and points of improvement (rRM23). As a result, the coachee is able to identify and remove productivity blocks (impediments to goal achievements) (RM8), enhance self-regulation (O2) and experience constant learning and improvement (rO28)</p>	
	<p>Refined CMO 6.3 (b) – Another contribution to the coach is giving positive feedback (rR26), acknowledging the efforts of the coachee, highlighting incremental improvements, and providing encouragement. This nurtures the coachee’s sense of accomplishment (rRM24), serving as positive reinforcement (rO29) and resulting in motivation for further action (rO19) leading to progress maintenance and goal striving (O7). It is worth noting that authenticity (rRM25) is a key reasoning mechanism for encouragement to yield outcomes.</p>	<p>“We used to talk about work and she’d (the coach) say encouraging things like you are good at what you do and things of that sort ... or when I take a step towards my goal she says ‘bravo, well done’ it felt nice.” - (Interview 1, 373 – 374)</p> <p>“Interviewee: I know that she’s not faking it... I know this... but she will sit with the other 10 cases, and she will motivate them all... nothing special, you know... in the end, we're in a coaching session, and she's the coach, and I'm the case. Interviewer: So, you mean she says it because it is her job?" Interviewee: So, yes in a sense, it dilutes the effect momentarily, it's like, I felt happy that you said ‘bravo’ but that's something expected (from a coach)” - (Interview 1, 456 – 463)</p>

Table 14: CMO 6 Refinements

CMO 7 - Progress Evaluation

At the conclusion of the coaching journey, both the coach and the coachee engage in a progress evaluation conversation in which they attempt to quantify progress and compare differences in thoughts, emotions, and behaviour pre- and post this coaching experience. This CMO concerns progress evaluation conversations, especially carried towards the end of the coaching relationship. Table 15 summarises the CMOs' refinements.

*Refined CMO 7.1 – (a) Towards the end of CBC relationships, both the coach and the coachee engage in progress evaluation conversations (PS8). In this conversation the coach gets the chance to ask the coachee to **quantify their progress and remind coachees of their accomplishments** (rR27) recorded during previous monitoring conversations since the beginning, making coachees **realise the extent of their progress** (rRM26) and value their effort. This helps coachees **mitigate negativity bias** (rO30), increase their **self-satisfaction** (rO31), and encourage continuous goal striving post coaching experience (O7).*

A progress evaluation conversation is commonly used to mark the end of a coaching programme. In this process, the coach seeks the coachees' feedback asking them to quantify their progress since they started (rR27). This discussion helps the coachees to realise the extent of the progress made (rRM26), as reported by one participant: "I felt good about myself. I started measuring progress in percentages and realised that I have made progress" (Interview 6, 370 – 371). One valuable contribution the coach can make to this evaluation conversation is to remind coachees of their accomplishments (rR27) that were gathered, discussed, and mutually agreed on during the progress monitoring sessions since the start of the coaching journey. Consequently, the coachees are able to assess their progress more accurately avoiding the risk of negativity bias (rO30). The risk of negativity bias is imposed due to the human tendency to focus more on what went wrong or what is missing from this experience rather than what was attained, which might impair the coachee's judgment of their own efforts and progress. As a result, the coachees leave the conversation with self-satisfaction (rO31) and enthusiasm to continue their goal-striving journey (O7) on their own.

*Refined CMO 7.1 – (b) For the progress evaluation conversation to be effective, the coach needs to **support their claims of effectiveness by evidence** (rR28) as well as **seek the coachee's consent** (rR29) and agreement on the evaluation being discussed. Otherwise, the coachee might see the coach as **biased** (rRM27) and feel that the claimed **progress is forced** (rRM28). As a result, the coachee will*

*feel that the evaluation is **irrelevant and unrelatable** (rRM10) to their own experience which might result in **dissatisfaction with the coaching experience** (rO32).*

Progress evaluation is theorised to provide mechanisms that can generate positive outcomes related to progress maintenance after the coaching programme ends. Nevertheless, in some cases, if the evidence provided as proof of progression is not elicited from the coachee or is presented without evidence or without the coachees being in concurrence (rR28), it might feel forced (rRM28), irrelevant and unrelatable (rRM10). The discussion might also be mistakenly perceived (rRM27) as the coach's attempt to showcase their own efforts and success (as explained in the following refinement), leading to the coachee's reluctance (rRM29) to share honest opinions in evaluating their experience in case it was negative. This was the case with one of the participants reporting: "It felt like to an extent it was just the coach trying to prove that we have done something ... what I got from it (evaluation discussion) was just that the coach is trying to prove that we have reached somewhere and that her efforts were not in vain" (Interview 3, 589 – 593). Consequently, the discussion can trigger a coachee's resistance which can lead to dissatisfaction (rO31) regarding the coaching journey.

Refined CMO 7.2 – (a) – *The coach needs to distinguish **clearly between progress evaluation and coaching evaluation** (rR30), as the coachee might **mistakenly perceive** (rRM27) progress evaluation conversations as evaluation of the coach's efforts and thus become **reluctant** (rRM29) to share their honest opinion face to face with the coach (if it is negative) or become embarrassed to disagree with the coach. This might result in **inaccurate evaluation** (rO33) as well as **feelings of dissatisfaction** (rO32) as the evaluation is **irrelevant and unrelatable** (rRM10).*

(b) – *During this conversation, the coach is also able to **broaden the coachee's scheme of self-evaluation**, (rR31) so the coachees can **avoid a reduction in their self-worth** (rRM30), **demotivation** (rO5) and exacerbation of other cognitive biases.*

Building from the previous refinement, the coach must distinguish between progress evaluation, coaching programme evaluation (rR30) and self-evaluation (rR31). The coach needs to set a frame at the beginning that this discussion is not an evaluation of the coaching efforts or the programme but rather an assessment of the entire progress and changes achieved since the beginning of the coaching journey. This confusion can cause embarrassment and reluctance (rRM29) for the coachee to share their honest opinions as it might feel like confronting the coach or evaluating them face to face. As reported by one participant: "I might feel that there was no progress in a goal so I want to give myself a five for instance, but I will give myself a 6 in consideration of the coach's feelings." (Interview 3, 594 – 597). As a result, the coachee might withhold negative thoughts or elevate their ratings to compliment the coach's efforts, leading to inaccurate evaluations (rO33). Similarly, the

coach may well attempt to broaden the scheme of the coachee's self-evaluation (rR31) while reminding them of the total progress recorded throughout the sessions. This can be done by pointing out that the discussed progress does not define coachees or their potential and that the incremental progress is just evidence of potential yet to be realised. This can save the coachee from the risk of a reduction in their self-worth (rRM30) as a result of this evaluation process, thus avoiding potential demotivation (rO5) or the triggering of any new psychological blocks.

Refined CMO 7.3 – *During progress evaluation conversations, the coach can **assist coachees in linking short-term progress with long-term plans** (rR32). Coachees can then assess their **return on investment** (rRM31) of time and effort having engaged with the programme. Consequently, coachees are able to assess their **overall satisfaction** (rO32) with the coaching experience as well as **make informed decisions** (rO34) about the renewal of the coaching agreement if needed.*

Further, as this evaluation conversation provides evidence and insights on the participant's performance and progress, the coachee and other organisational stakeholders can assess the return on their investment (rRM31) in this programme better. The discussion also provides the coachee with opportunities to link short-term progress with long-term plans (rR32) as they devise learning outcomes and plan out the next steps (post-coaching relationship) accordingly. As highlighted by one participant whose long-term goal was to become a solution architect, they were able to connect their coaching progress to this aspiration. (Interview 7, 139 – 148). Consequently, coachees are able to make informed decisions (rO34) about their overall self-development path and the possibility of extending or renewing the coaching relationship. Also, coachees are able to formulate an informed opinion about their satisfaction (rO32) with the coaching experience. This opinion and information from the evaluation process can also be useful if shared by the coachee with organisational decision-makers for them to make informed decisions on future investments. Conclusively, this process allows the extraction of information that can be beneficial to decide on the future direction not only on behalf of the coachee but also involved stakeholders.

Provisional CMO	Refined CMO	Causal Insights
<p>Provisional CMO 7 - When coachees engage in evaluating their progress and maintain a feedback loop (R8) with their coach, they develop solution-seeking methodologies and gain problem-solving skills (RM11), which on one side prevent relapses (O9) and ensure continuity of goal attainment (DO1), and on the other side reduces stress (O5), as well as enhancing well-being (DO2).</p>	<p>Refined CMO 7.1 (a) – At the end of the CBC relationship, both the coach and the coachee engage in progress evaluation conversations (PS8). In this conversation the coach gets the chance to ask the coachee to quantify their progress and remind coachees of their accomplishments (rR27) recorded during the monitoring conversation, making coachees realise the extent of their progress (rRM26) and the importance of their effort. This helps coachees mitigate negativity bias (rO30), increasing their self-satisfaction (rO31) as well as promoting further goal striving post coaching experience (O7).</p> <p>Refined CMO 7.1 (b) – For progress evaluation conversations to be effective, the coach needs to support any claims by evidence (rR28) as well as seek the coachee’s consent (rR29) and agreement on the evaluation discussed. Otherwise, the coachee might see the coach as biased (rRM27) and feel that the progress is forced (rRM28). As a result, the coachee will feel that the evaluation is irrelevant and unrelatable (rRM10) to their own experience which might result in dissatisfaction with the coaching experience (rO32).</p>	<p>“I will not deny that it was useful when I did not realise the importance of what I was doing. When I review my effort and find I reached a good point, so I feel like I have done something. But the only good point for me is when I felt/thought like the session is useless it brought to my attention that there was an outcome after all” - (Interview 3, 585 – 587, 593 – 594)</p> <p>"Yes, it happened. I was someone who tended to focus on negativity a bit, even in the process of rating objectives. The conversation can go like what’s the matter with you. Can’t you see you already did many great things, why you don’t appreciate/Give yourself credit for the good things that you do. It was always like that.” - (Interview 7, 377 – 380)</p> <p>“Interviewee: It felt like to an extent it was just the coach trying to prove that we have done something Interviewer: and what is the problem with that? Haven’t you progressed? Interviewee: I am not sure if this exercise aims for a certain purpose ... But what I got from it was just that the coach is trying to prove that we have reached somewhere and that her efforts were not in vain ...” - (Interview 3, 589 – 593)</p>
	<p>Refined CMO 7.2 (a) – It is important for the coach to clearly distinguish between the progress evaluation and the coaching evaluation (rR30), as the coachee</p>	<p>“It feels like if the progress evaluation was done outside the session as in someone delivered our written evaluation to the coach it would have been better as sometimes it is embarrassing. I might feel that there was</p>

	<p>might mistakenly perceive (rRM27) this conversation as an evaluation of the coach’s effort and thus become reluctant (rRM29) to share an honest opinion or become embarrassed to disagree. This might result in an inaccurate evaluation (rO33) as well as a feeling of dissatisfaction (rO32) as the evaluation is irrelevant and unrelatable (rRM10).</p> <p>Redefined CMO 7.2(b) – During this conversation, the coach is also able to broaden the coachee’s scheme of self-evaluation, (rR31) so the coachees can avoid a potential reduction in self-worth(rRM30), demotivation (rO5) and fostering of other cognitive biases.</p>	<p>no progress in a goal so I want to give myself a five for instance, but I will give myself a 6 in consideration of the coach’s feelings.” - (Interview 3, 594 – 597)</p> <p>“I didn't feel like I was actually applying anything or improving. But when I sat in these evaluation sessions, I found that I had actually been doing a really good job. So, well done to me. Interviewer: What made you feel good about yourself? Was it just the fact that you discussed progress, or were there other things? Interviewee: Yes, I discovered that I'm not actually staying idle; I'm doing something about it. And there are other additional/alternative things I can do if I'm stuck.” - (Interview 6, 373 – 378)</p>
	<p>Refined CMO 7.3 – During progress evaluation conversations the coach can assist coachees in linking short-term progress with long-term plans (rR32). Coachees can then assess their return on investment (rRM31) from engaging with the programme. Consequently, coachees are able to assess their overall satisfaction (rO32) with the coaching experience as well as make informed decisions (rO34) about the permanency of their coaching journey.</p>	<p>“Interviewee: I also want to be a solution architect, we couldn't measure that goal much, however during these two and a half months there was progress for certain situations, and I came and talked about it so it felt like I am getting closer... Becoming a solution architect is not a short-term objective Interviewer: But you felt progress Interviewee: Yes, I was focused, and I reflect ‘so in the past week, was there something that brought me closer.’” – (Interview 7, 139 – 148)</p>

Table 15: CMO 7 Refinements

Novel CMOs

Novel CMOs, presented in this section, were configured from the data through a round of open coding (concept-driven analysis) as detailed in Chapter 3 (Jagosh, 2023a). Open coding was conducted to mitigate the potential bias of mere provisional CMO validation. Novel CMOs are new theories that were not evident in the literature review but are based on analysis of primary data. Analysis at this stage focused on contextualising the provisional CMOs and exploring organisation-specific and implementation-related mechanisms that can affect programme outcomes. More precisely, novel CMOs focused on programme introduction and voluntary participation, logistics and implementation, organisational support and coaching outcomes maintenance.

CMO 8 - Programme Introduction and Voluntary Participation

This CMO is coded to encompass efforts made during the preparation, introduction, and recruitment for the coaching programme within the organisational context. It addresses two main points, firstly organisational communication with a focus on the introductory awareness session and how it can impact the employee's acceptance of the programme and decision to engage with it. Second is the notion of voluntary participation and how it can be impacted by the perceived power dynamics within the organisation. Table 16 presents the CMO in detail.

*CMO 8 – (a) During CBC programmes' introduction into organisational contexts, organisations ensure clear communication about the programme through various tools, one of which is conducting awareness sessions (PS8). The organisation can take this chance to **communicate programme objectives and intentions** (rR33) to **manage employees' expectations** (rR34) as well as address concerns and inquiries. This communication then affects employees' **perceived potential for benefit and views of return on investment** (rRM31) out of programme participation. As a result, employees can gain **comfort** (rRM32) about joining and organisations can trigger employees' **curiosity** (rRM33), **excitement** (rRM34) and **buy-in** (rO35). Engagement here is moderated by employees' **trust in the organisation's intentions** (rC9).*

The operationalisation of CBC programmes in an organisational context requires a thorough understanding of the role of communication in managing employees' expectations and fostering their participation. This CMO looks into one of the main strategies by which open communication can be manifested, which is conducting awareness sessions (PS8) before programme commencement. In awareness sessions, organisations can provide comprehensive information about the programme's objectives and intentions (rR33), giving employees a clear view of how the programme aligns with the organisation's goals and their personal development plans. By articulating the objectives and development opportunities available through the programme, the organisation can maximise the

perception of return on investment and the potential benefit of participating (rRM31). The organisation can also take the chance to address employees' inquiries and concerns which can discourse uncertainties and misconceptions surrounding the programme and help with expectation management (rR34). Among these misconceptions might be normalising seeking mental health support as it might still be a taboo topic in certain cultures. For instance, one participant reported that seeking professional help for mental health just started to be normalised in Egypt. The implications of this stigma can make individuals remain uncomfortable while engaging with coaching programmes, regarded under the umbrella of mental health interventions (Interview 6,634-641).

Hence, by actively engaging with employees through an open communication awareness session, organisations can instil a sense of curiosity (rRM33) and excitement (rRM34) to try out the programme. This can be accompanied by feelings of comfort (rRM32) due to being informed and included in the process, resulting in buy-in (rO35) and active engagement and collaboration. It is also worth noting that this process is mediated by the employees' belief and trust in a transparent organisation (rC9), that might be built from previous experiences.

*CMO 8 – (b) During the programme introduction, the organisation can emphasise **voluntary participation** (rR35) and advocate for **offering professional help** (rR36) as a benefit from the company. However, being introduced in the workplace might put a **sense of obligation** (rRM35) to participate in these programmes, which can result in **conformity and eventually involuntary participation** (rO36) or reluctance to exit despite wanting to. This perception is affected by the **power dynamics** (rC10) within the organisational context (rC11).*

This CMO unpacks the complexities concerning voluntary participation and the foreseen sense of obligation to participate. Through various communication channels, the organisation can advocate for offering professional support (rR36) as a sign of its commitment to its employee's mental health and well-being. Simultaneously, in the organisation's ethical attempt to empower employees and encourage them to take ownership of their development, the organisation can announce voluntary participation (rR35) to avoid negative connotations of labelling or exposing employees if directly chosen by the organisation to participate. However, these two resources were found to be greatly mediated by power dynamics in the organisational context (rC10). Data suggest that despite the organisation's effort to ensure communication (about voluntary participation) is clear through management, HR representatives and the coach, participants can still feel a sense of obligation (rRM34) to participate given that the programme is championed by senior management. The perceived power dynamics (rC10) exert pressure on participants to conform (rO36) and complete the entire programme even if it contradicts their personal preferences and despite their true interests and

needs at the time of the programme. As reported by one participant: “It could be a bit embarrassing to decline the invitation from the company. Instead of embarrassing someone by saying, “No, I don’t find it beneficial,” they’d rather avoid conflict and just complete it as an assignment.” (Interview 5, 310 – 312). This tendency to conform was not found to be related to a lack of perceived individual power to express one’s opinion nor a lack of supportive organisational culture but rather to wanting to meet the organisation’s expectations and directives. Thus, power dynamics (rC10) within organisational contexts can provide a context where employees do not feel they have an authentic and real choice about either engaging in the programme or about decisions whether to continue.

Novel CMO description	Causal Insights
<p>CMO 8 (a) – During CBC programmes’ introduction into the organisational context, organisations ensure clear communication about the programme through various tools such as conducting awareness sessions (PS8) and sending written communication. The organisation can take the chance to introduce programme objectives and intentions (rR33) to manage employees’ expectations (rR34) as well as answer employees’ concerns and inquiries. Communication then affects employees’ perceived potential for benefit and return on investment (rRM31) from programme participation. As a result, employees can gain comfort (rRM32) and organisations can trigger an employee’s curiosity (rRM33), excitement (rRM34) and buy-in (rO35) to participate in coaching programmes. Contribution to coaching programmes is also moderated by an employee’s trust in the organisation’s intentions (rC9)</p>	<p><i>“In Egypt, people have recently started becoming more accepting and vocal about going to a therapist. And that there is no shame in going to a coach or else ...</i> <i>Interviewer: Do you think this dogma can impact the programme?</i> <i>Interviewee: Definitely, some people don't feel comfortable admitting that they participate in something like this, so there can be a mental block even in their contribution level during the session.” - (Interview 6, 636-644)</i></p>
<p>CMO 8 (b) – During the programme introduction, the organisation can emphasise voluntary participation (rR35) and advocate for offering professional help (rR36) However being introduced in the workplace might put a sense of obligation (rRM35) to participate in these programmes. This can result in conformity and eventually involuntary participation (rO36) or reluctance to exit despite wanting to. This CMO is also impacted by power dynamics (rC10) within the organisational context (rC11).</p>	<p><i>“Interviewer: Did you feel like you were obligated to participate in this programme?</i> <i>Interviewee: No Simply, if I didn't want to participate from the beginning or after the first or second time, if I felt like it was a waste of time, I would have been very frank and said, ‘I don't want to contribute. I feel like I'm wasting my time.’ - (Interview 1, 596 – 601)</i></p> <p><i>“If someone wanted to decline, they would feel embarrassed to say, they would wonder ‘am I the only one who will be declining, I’ll just go along with it’” - (Interview 5 337-339)</i></p>

Table 16: CMO 8 configuration

CMO 9 – Programme Logistics and Implementation

The success of coaching programmes is not only influenced by the strategies employed and their mechanisms but also by the physical environment in which it is being employed. This CMO highlights the impact of programme delivery and logistical decisions on coaching outcomes. The logistics decisions include the choice of session location as well as decisions about the time and frequency of the coaching sessions. Refinements, along with causal insights from the data, are presented in Table 17.

CMO 9 – (a) *if the programme is carried out in a **private room** on work premises (rR37), it might be easier and more **accessible** (rO37) for coachees to participate consistently. Ensuring the dedication of a **private room** (rR37) with minimal interruptions will make the coachee feel that their time is **respected** and **supported** and that **confidentiality** is maintained (rRM36) and thus maximise their **engagement** (rO6) and session **utility** (rO38) accordingly.*

*However, this location can cause some coachees to feel **uncomfortable** (rRM7), being in their work environments, leading to them not fully **engaging** (rO6) or opening up about work problems specifically.*

This CMO concerns the programme logistics decisions about location. It was evidenced that opting to carry out the programme on organisation premises (rR37) is a double-edged sword. When the sessions are available on the work site, coachees perceive them as more accessible (rO37), conducive and convenient, diminishing commute and reducing time constraints. The perceived proximity can make it easier for coachees to integrate the sessions within their daily routines, especially during busy workdays when it is harder to allocate time for coaching off-site. This can be a motivating factor for coachees to maintain consistent engagement (rO6) with the programme and attend all scheduled sessions. However, the association of the workplace with one's professional role and persona can ignite a feeling of discomfort (rRM7) as coachees try to maintain their professional appearances shielding their personal issues and vulnerabilities from the workplace. As a result, coachees can experience hesitance in full engagement (rO6) and discussion of sensitive topics beyond the work domain or even work-related conflicts and challenges. This can impede programme outcomes as it limits the depth of coaching conversations. This debate was evident in one of the participant's responses: "Its drawback is the work vibe, especially that sometimes I wanted to complain about work within my sessions so it might have felt better if it was in a different place, it

would be a change from work. However, we will lose the advantage of being in the same place and reducing commute.” – (Interview 7, 199 -201) It is thus important to consider the properties of the physical space provided. The room needs to feel private (rR37) and dedicated to the coaching sessions with the absence of interruptions and minimal external distractions. The dedication of private space on the organisation’s behalf portrays the organisation’s efforts to create a supportive and confidential environment (rRM36) for employees’ development and well-being, which can add to the coachee’s sense of collectiveness, collaboration, and success. This will foster perceptions of the organisation’s respect and commitment to employees’ well-being and thus motivate coachees’ engagement (rO6) and sense of utility per session (rO38).

CMO 9 (b) – Having the programme **timebound** (rR38), with a predefined number of sessions, helps the coach and the coachee plan progress with **commitment** (rRM22) to finish within a specific timeframe. Consequently, this **motivates action** (rO19).

However, if the sessions are not **perceived by the coachees as well-paced** (rRM37) (in terms of frequency) or inconvenient (in terms of their timing during the day) this might lead to **pressure** (rRM7), resulting in coachees attending sessions unprepared, just to check it off their task list, decreasing the **utility** per session (rO38). This is also moderated by the contextual factor of **workload** (rC8) and **work dynamics** (rC9), in terms of distribution of work and communication regarding time commitments.

The other aspect of logistics configured into this CMO is the aspect of time. One main resource implemented in this programme is having the programme timebound (rR38), this enables the coach and the coachee to plan and measure progress within a specific timeframe which creates a sense of direction, commitment (rRM22) and accountability. As clarified by one participant: “It’s like how we set SMART goals. We know the limitations of time. So, I need to achieve certain things within certain times. When things are open-ended, the coachee can go at their own pace, which can be much slower than their potential. We would try to push, but there’s no set boundary, or an endpoint, so they’d go at a slow pace” (Interview 8, 576-594). It can also provide a sense of structure which adds a motivation factor (rO19) for coachees to achieve meaningful progress towards their designated goals within the agreed duration. However, considering the rivalries that might arise in the work context (rC6), potential challenges are acknowledged regarding the perceived pace (rRM37) and convenience of the session timing during or after the coachee’s busy workday. Some participants reported that they were asked to attend sessions twice a week to compensate for earlier cancellations that occurred due to workload and to finish within the designated duration. This approach was viewed as fruitless as coachees did not have the time to prepare, reflect or work on the exercises or homework from the

previous sessions. This can add pressure on the coachee due to a perceived lack of alignment with their daily priorities and responsibilities, leading them to regard the session as a task to get done, without considering it as a beneficial development opportunity. Consequently, the utility per session is diminished (rO38) impacting the overall value of the programme.

Novel CMO description	Causal Insights
<p>CMO 9 (a) – if the programme is carried out in a private room on work premises (rR37), this location, on one hand, might make it easier and more accessible (rO37) for coachees to participate and be consistent. On the other hand, it can cause coachees to feel uncomfortable (rRM7) leading to them not fully engaging (rO6) or opening up about work problems.</p> <p>Ensuring the dedication of a private room (rR37), with minimal interruptions, will make the coachee feel that their time is respected, and supported and that confidentiality is maintained (rRM36) and thus maximise engagement (rO6) and session utility (rO38).</p>	<p><i>“Another thing, although it didn't bother me personally, I heard several comments that some people do not feel comfortable having the session in the work office. For me, it was more convenient because I don't have to commute extra.” – (Interview 1, 653 - 655)</i></p> <p><i>“So, respecting the idea of the programme and the time allocated for it was a good thing, we also had a place where we'd have the session knowing no one was going to interrupt. This made a big difference.” – (Interview 6, 566 – 568)</i></p>
<p>CMO 9 (b) – Having the programme timebound (rR38), with a predefined number of sessions, helps the coach and the coachee plan progress with commitment (rRM22) to finish within a specific timeframe. Consequently, this motivates action (rO19). However, if the sessions are not perceived by the coachees as well paced (rRM37) in terms of frequency or inconvenient in terms of timing during the day, this might lead to pressure (rRM7), resulting in coachees attending sessions to fulfil a task, and decreasing the utility per session (rO38). This is also moderated by the contextual factor of workload (rC8) and work context dynamics (rC9).</p>	<p><i>“Interviewer: the concept that the programme was time-bound ... Did this pressure you? ...</i> <i>Interviewee: Yes, sometimes it felt like that. Sometimes the person (coachee) wanted to proceed at a slower pace than needed by the programme ... but we needed to adapt to the required \ pace, but sometimes one encounters challenges in certain areas that take up a lot of time to tackle. On the other hand, those individuals managed to progress at a quicker pace in other aspects. So, it felt alright, the programme wasn't that restrictive in this sense... but the idea that it was time-bound ...was mostly beneficial.</i> <i>Interviewer: Can I know why?</i> <i>Interviewee: It's like how we set SMART goals. We know the limitations of time. So, I need to achieve certain things within certain times. When things are open-ended, the coachee can go at their own pace, which can be much slower than their potential. You would try to push, but there's no set boundary, or an endpoint, so they'd go at a slow pace. However, the time-bound aspect allowed us to maintain a specific pace to reach a goal within a specific time, it is like setting a deadline. If there's no deadline, even if you finish a task, you might not have the same sense of urgency. But if you have a deadline, the probability of completing that task is higher.”</i> <i>(Interview 8, 576-594)</i></p>

	<p><i>“The most frequent complaint we always had was that we didn't know the timing of the sessions, some people didn't want it in the morning but rather a bit later, others wanted it to be the first thing in the morning. The timing relied on the coach's available time slots also.” – (Interview 6, 568 – 571)</i></p> <p><i>“Sometimes, cancellations or trying to find a suitable time during work hours could be a bit hectic, especially if you have other commitments. It could also be because the coach herself was working with tight deadlines, and we were also working on a tight deadline as we had specific dates for the programme to finish. So, this might have caused some issues in the booking process. Additionally, there were people who needed to book makeup sessions twice a week.” - (Interview 6, 269-274)</i></p> <p><i>“The idea of having 8 sessions ... I didn't always have something new to reflect on. I mean, nothing much changed since the last session. Maybe it just needs a little more time in between and shouldn't be as frequent as twice a week, may be once a week, so you'd have something to reflect on. Interviewer: So, you have many sessions that take place twice a week? Interviewee: Towards the end, yes.” - (Interview 4, 424-429)</i></p>
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CMO 10 – Organisational Support

Like most organisational interventions, organisational support can be represented by management and leadership alignment and support of the programme's values and objectives. This CMO highlights organisational preparations for programme adoption. More specifically, it presents theories on how effective communication with management before and during the programme implementation can impact the levels and ways of managerial support given to employees during their coaching journey, which thus facilitates programme adoption. This CMO is summarised with causal insights quotes in Table 18.

CMO 10 – *As part of programme preparation the human resources team needs to communicate (rR39) with the management team showcasing programme benefits to the organisation to acquire their support. Managers' support of the programme translates into **managerial support** (rC12) and resources given to the employees during the coaching programme.*

Table 17: CMO 9 configuration

The **perceived managerial support** (rRM38) on the coachee's behalf will lead to a sense of **credibility and significance** (rRM39), fostering a coachee's **commitment** to (rRM22) and **engagement** (rO6) with the programme. Additionally, it can foster a **sense of collectiveness** (rRM40), which increases **programme acceptance** (rO39) and **buy-in** (rO35).

The importance of maintaining communication about the programme with management as well as acquiring managerial support was evident in the data. Initially, communicating the potential benefit of the programme to the organisation and the employees before support can result in management encouraging employees' participation (rO6) by supporting them with time and resources. Further, maintaining communication during the programme execution can help managers organise workloads accordingly in their attempt to support their team members during their coaching journeys (rC16). This was clear from the following quote: "what helped was the general respect that someone is having their session at that time, so no one allocated anything extra or assigned anything at that time, that might stress the person out later, when they have only an hour or two left in their day." (Interview 6, 564 – 566). Furthermore, acquiring leadership endorsement, especially from senior management, can impact the employees' perception of the programme's significance and credibility (rRM39) which can facilitate buy-in (rO35), acceptance (rO40) and engagement (rO6). This endorsement can also reinforce a sense of shared commitment to individual well-being and development, fostering a sense of collective success (rO39).

Novel CMO description	Causal Insights
CMO 10 – As part of programme preparation the human resources team needs to communicate (rR39) with the management team to acquire their support. This will enable the managers to support (rC12) their employees during the coaching journey. The perceived managerial support (rRM38) on the coachee's behalf will lead to a sense of credibility and significance (rRM39), fostering the coachee's commitment to (rRM22) and engagement (rO6) with the programme. Additionally, it fosters a sense of collectiveness (rRM40), which increases programme acceptance (rO39) and buy-in (rO35)	<p>"...that's one thing, the other thing is for the managers to be aligned with this time commitment, so they'd know that there is an hour required per week for the programme. Interviewer: Okay, do you feel that management was not aligned? Interviewee: Personally, as a team lead, I wanted to be informed about the slots my team members chose ... I'd be talking to a customer, and I'll commit that one of the team members will be attending to their request shortly, then find out they are in a session. Also, if there's a next time or other sessions, organisational members should know that this person has an hour commitment weekly and should understand that it's just like any other task, it's not something supplementary ... after all, if a person is well, they'll be more productive." - (Interview 7, 225 – 237)</p> <p>"The idea that it was a group thing actually helped instead of feeling like it's targeted for specific people. As a group, we're collectively doing this, and we're sending out a message that there is no issue or something wrong with anyone. Interviewer: Why do you think this helped?</p>

	<p>Interviewee: Because it sends out a message that you do not have an issue and we're not telling you that there's something wrong with you specifically. This might be the first impression for people who are not familiar with the concept of coaching. It's like we are trying to push forward together as an entity regardless of our individual levels or positions." - (Interview 6, 647 – 654)</p> <p>"Interviewer: Were there any (organisational) factors that were positive and helpful that you would want to maintain? Interviewee: Maybe just that the management understood the work-related circumstances of the coachees. They didn't put too much pressure on them." - (Interview 8, 562 – 564)</p> <p>"The company offered us a well-being programme. The goal of the programme is 1, 2, 3. So, the company offered it, and the place is the same as the work place .. I'm not losing anything at all (by participating). So, I don't need to commute to a specific place or go somewhere far. I don't need to make any extra efforts. I don't need all that. But in this case taking the sessions in the company is like taking the sessions at home, So no need for any extra efforts. Especially that there are times when I am not even sure what do I need to talk about. ... In this scenario the company guided me but if sought it on my own no one will guide me." - (Interview 4, 277 – 285)</p>
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Table 18: CMO 10 configuration

CMO 11- Post Coaching Progress Maintenance

The success of organisational programmes is usually manifested in sustainable positive outcomes in the longer term. This CMO explores programme maintenance, in terms of the necessary procedures for outcome sustainability after the programme concludes for maximising the long-term benefits of the invested time, money and efforts. This includes aligning the programme objectives to work-related goals and long-term organisational vision, arranging checkpoints when needed after the coaching relationship finishes and integrating such programmes with other employee development initiatives. CMO details are presented in Table 19 below.

CMO 11 (a) – *Aligning the programme aims with **work-related objectives** (rR40) will trigger a **sense of importance** (rRM41) on the coachee's behalf, leading to increased **engagement** (rO6).*

The first proposition for outcomes sustainability is to redirect the programme focus to work-related objectives and workplace well-being, as well as align programme objectives with wider organisational goals (rR40). Given the workplace context, it is reported in the data that some

participants advocate for focusing the programme's objectives on an individual's professional development and work-related growth and well-being, rather than targeting personal development in general. It is reported that coachees might take the programme more seriously, elevating its importance (rRM41), if they feel like the programme can directly improve their professionalism and career progression. This can help maximise and build on coaching outcomes as these results can then be easily transferred and interwoven into coachees' daily routines at work, allowing them to apply their newly acquired skills and yield results on the ground. This refinement is made in light of one of the participant's reflections: "another thing that could significantly improve the programme ... we could connect it to something related to work. That could have made a difference. So people would think that this is a work-related programme and it would have had a better impact" (Interview 5, 487 – 496).

CMO 11 (b) – *For sustainability purposes, it is recommended for the coach to remain accessible and to give the option to the coachee to schedule **checkpoints any time after the coaching programme** (rR41), where both parties can revisit the conclusions and lessons learned from the coaching experience. This can **serve as a reminder** (rR22) which fosters a sense of **commitment** (rRM22) to a coachee's long-term goals and **empowers the coachees to take ownership** of their development and well-being (rO40) while being supported.*

The data report a general drop in goal striving after the coaching programme. Some participants agree that the resulting cognitive shifts and new awareness resulting from the cognitive aspects of the programme remain. However, there is no guarantee that continued efforts will be made to strive for these goals after the coaching programme. Thus, this CMO is coded about one of the participant's propositions, which suggests incorporating the option of scheduling a checkpoint meeting with the coach (rR41) after the coaching ends (Interview 6, 63 -70). In this checkpoint, the coachee can revisit the conclusions and lessons learned from this experience, reflect on the long-term impact of the coaching experience and be reminded (rR22) of the commitments (rRM22) made for self-development. This will hold the coachee accountable to continue this self-development journey and assist with the transferability and sustainability of positive outcomes in the longer term. Thus, the coachee becomes empowered to take ownership of their self-development after coaching ceases (rO41). This checkpoint can also assist coachees with seeking advice or assistance with new tools, resources, and/or exercises to deal with changes and novel challenges encountered post-coaching.

CMO 11 (c) – *The organisation's attempt to **integrate the coaching programme with employee management and development policies and systems** (rR42) and communicate it to*

employees can foster a **sense of importance** (rRM41) and a sense of **collectiveness** (rRM39), which in return can impact the programme’s **engagement** (rO6), **commitment** (rO23) and **acceptance** (rO39)

Finally, to ensure the maximum return on the organisations’ investment for coaching programmes, it is best to ensure the integration of the programme with organisational policies, especially employee development and succession planning related processes. It is important for organisations to know exactly what benefits they are looking to cultivate by promoting and investing in their employees’ well-being. It is also important for organisations to be mindful of the potential integration points available within corporate policies. Identifying these points of integration and communicating them to the employees, can increase the programme’s importance (rRM40), credibility (rRM39) and perceived potential benefit (rRM31). It also fosters a sense of collective success (rRM40) which can further result in programme acceptance (rO40) and an increase in uptake and engagement (rO6) in the future.

Novel CMO description	Causal Insights
<p>CMO 11 (a) – Aligning the programme objectives with work-related objectives (rR40) will trigger a sense of importance (rRM41) on the coachee’s behalf leading to increased engagement (rO6)</p>	<p><i>“There is also another thing that I thought of that could significantly improve the programme. Originally, the goal of the programme was mainly for employees’ personal development, but for me, I thought that we could connect it to something related to work. That could have made a difference. So, people would think that this is a work-related programme and it would have had a better impact ...People would have focused on it more, yes. Personally, I could have worked on the personal aspect of it with myself later.” - (Interview 5, 487 – 496)</i></p> <p><i>“Well, I believe people tend to focus more on the materialistic part of things or results, so if there is a chance for this to work along with having the opportunity to see the results in one’s own career, they’ll then pay much more attention to it. But if it’s just personal development, one might think I’ll tackle these on my own, I don’t need someone to help. Also, it’ll be more beneficial to the company itself that it focused on improvements for organisational members in work-related matters.” – (Interview 5, 498 – 503)</i></p>
<p>CMO 11(b) – For sustainability purposes, it is necessary to ensure accessibility to the coach and give the option to schedule checkpoints post-coaching programme (rR41), where the coach and coachee can revisit the conclusions and lessons</p>	<p><i>“Interviewee: Well, to be honest since the programme ended, I haven’t made much progress. But it’s either participate in phase 2 of the programme or I have to work on it myself. Interviewer: And when you say work on it yourself, you know what needs to be done? Interviewee: Yes, for example, I may continue the coaching with someone else, or I start searching for ways to continue these things.”</i></p>

<p>learned from the coaching. This can serve as a reminder (rR22) which fosters a sense of commitment (rRM22) to a coachee's long-term goals and empowers coachees to take ownership of their development and well-being (rO40).</p>	<p>- (Interview 5, 752 – 756)</p> <p><i>"It's like you need someone to come in every once in a while, check on you, and remind you of things.</i></p> <p><i>Interviewer: So, do you think you will need that follow up after coaching?</i></p> <p><i>Interviewee: For a period of time, it does not have to be short intervals, it can be every three months or so, just like a checkpoint to make sure you're on track. If there's something that needs to be adjusted or certain tools that don't seem effective anymore, we can choose something else because individuals change and the way they think changes periodically. With the pace of life and work, one needs to have that checkpoint to ensure they're on track."</i> - (Interview 6, 63 -70)</p>
<p>CMO 11 (c) – The organisation's attempt to integrate the coaching programme with employee management and development policies and systems (rR42) and communicating it to employees, can foster a sense of importance (rRM41) and a sense of collectiveness (rRM39), which in return can impact the programme's engagement (rO6), commitment (rO23) and acceptance (rO39).</p>	<p><i>"Interviewer: So, you can't think of anything that we can improve in this programme for next time? Interviewee: Just a follow-up on the plan or the things we discussed in the very last session. It would be good to have a follow-up."</i> - (Interview 6, 470 – 472)</p> <p><i>"Honestly, I don't remember what I wrote in the plan in the last session so definitely, almost 90% didn't follow through what I wrote. Maybe I am abiding by what I learned on a subconscious level, so I apply some of what I learned, but I still haven't set targets for myself, and no one checks in with me anymore, so it's left like that."</i> - (Interview 6, 473 -476)</p>

Table 19: CMO 11 configuration

Chapter 5: Discussion

This study aimed to contribute to developing knowledge on evidence-based coaching and organisational interventions. First, it collated evidence on how CBC programmes work (or do not work) in organisational contexts, for whom, in what circumstances, and how, via a realist literature review. Through completing the second research phase, the provisional programme theories were refined using empirical data from one organisation, as an example of how theories can be tested in future research. Thus, this research can be regarded as a theory elicitation exercise by consulting relevant sources and engaging with stakeholders to uncover ideas and assumptions underlying how CBC is expected to work. The outcomes of this synthesis process are programme theories that can be transferred, tested, refined and contextualised in new contexts. It is worth acknowledging that the CMO configuration was the analytical tool used to help explore different aspects of the programme theory and the interplay between them (Wong, Greenhalgh, et al., 2013). The refined CMOs represent the finalised programme theories by which this research claims CBC is expected to generate outcomes. Thus, this section will refer to CMOs and programme theory interchangeably. It will then compare findings with existing literature considering how this research contributed to three main knowledge areas. First is the contribution to organisational intervention planning and evaluation knowledge. Second is the contribution to coaching knowledge. Third is the contribution to practice, which will discuss the practical implications for the main stakeholder groups involved in this study, including coaches, coachees, organisational human resources teams and policymakers. Contribution to practice also includes practical implications that can be transferred to other organisational contexts. Finally, the chapter will end by presenting research strengths, limitations and recommendations for future research.

Findings in Light of Existing Theory

This research presents a total of 11 CMOs. Seven CBC process-related CMOs, initially coded from the literature review, were refined from the primary interview data gathered with considerations of any potentially inhibiting mechanisms (Dalkin et al., 2021; Jagosh, 2023a). These CMOs are relevant to the effectiveness of the coaching process itself and the potential outcomes for coachees. They mainly contribute to the understanding of what works in CBC programmes, what does not, and for whom. Another four-novel implementation-related CMOs were configured from the empirical data specifically collected for this study. These CMOs are concerned with the execution of the coaching programme within an organisational context. They mainly contribute to the implementation process evaluation and our understanding of the circumstances in which CBC programmes work and how (Roodbari, 2022).

This study attempted to contribute to CBC, general coaching and evaluation literature by conceptualising CMO aspects from the CBC programme. This conceptualisation can be beneficial to initiate future coaching-related realist evaluations and programmes design. Table 20 lists the tentative CMO elements produced by this realist synthesis that can be considered as initial theories in future realist evaluations of CBC programmes in organisational settings. This section further discusses key insights and programme theory refinements.

	Relevant CMO + corresponding programme design (PS)	Proposed elements per C-M-O category as per this realist synthesis			
		Context	Resource Mechanism	Reasoning Mechanism	Outcomes
	<p>CMO 8 - Programme introduction and voluntary participation</p> <p>PS9 – Programme induction session</p>	<ul style="list-style-type: none"> ◦ Work contexts ◦ Transparency and trust in organisation ◦ Power dynamics 	<ul style="list-style-type: none"> ◦ Programme objectives & intentions. ◦ Employee’s expectation management ◦ Voluntary participation ◦ Offering professional support 	<ul style="list-style-type: none"> ◦ Feelings of comfort/curiosity/excitement ◦ Sense of obligation 	<ul style="list-style-type: none"> ◦ Employee’s buy-In <hr/> <p>(Negative outcomes)</p> <ul style="list-style-type: none"> ◦ Conformity and involuntary participation
	<p>CMO 1 - Coaching conversations for exploration</p> <p>PS1 – Coaching conversations for exploration including, inference chaining, Socratic questioning, guided discovery</p> <p>PS2 – Written reflections exercises guided by the ABCDE model.</p>	<ul style="list-style-type: none"> ◦ Ready to admit problems ◦ Willing to share 	<ul style="list-style-type: none"> ◦ Voicing out thoughts ◦ Room to explain oneself ◦ Divergence while exploring coachee’s mindset ◦ Eliciting detailed issues and problems ◦ Confrontational techniques ◦ In-session exercises to generate session content 	<ul style="list-style-type: none"> ◦ Targeted self-awareness ◦ Sense of relevance and relatability ◦ Feeling heard ◦ Drawing connections and links ◦ Reason one’s thoughts and beliefs ◦ Solidifying thoughts 	<ul style="list-style-type: none"> ◦ Identifying one’s own psychological block/s ◦ Organising one’s thoughts ◦ Gaining clarity ◦ Broadening one’s perspective ◦ Easier thought retrieval ◦ Proactivity and engagement ◦ Stress reduction <hr/> <p>(Negative outcomes)</p> <ul style="list-style-type: none"> ◦ Feeling pressured, negative, repetitive or bored ◦ Constrained ability to self-express ◦ Demotivation

					<ul style="list-style-type: none"> ◦ Resistance and disengagement
<p>CMO 2- Coaching conversations for explorations: Improved emotional handling</p> <p>PS1 – Coaching conversations for exploration</p>	<ul style="list-style-type: none"> ◦ Individual differences 	<ul style="list-style-type: none"> ◦ Explore, reason and focus one’s attention on their emotional state ◦ Introduce self-directed mental techniques purposefully on trial and error basis 	<ul style="list-style-type: none"> ◦ Awareness of emotions-behaviour link ◦ Understanding and acceptance of one’s emotions 	<ul style="list-style-type: none"> ◦ Decreased emotional reactivity ◦ Improved emotional handling ◦ Enhanced self-regulation <p>(Negative outcomes)</p> <ul style="list-style-type: none"> ◦ Ignoring exercises ◦ Wrongful application of self-directed mental techniques 	
<p>CMO 3 - Coaching conversations for cognitive re-orientation</p> <p>PS3 – Cognitive re-orientation techniques</p>	<ul style="list-style-type: none"> ◦ Coach qualification and knowledge 	<ul style="list-style-type: none"> ◦ Pinpoint the problem’s root causes ◦ Challenging irrational thoughts or beliefs ◦ Brainstorm on alternative useful thoughts 	<ul style="list-style-type: none"> ◦ Feeling convinced ◦ Enhanced positive thinking ◦ Replace irrational beliefs and negative thinking patterns ◦ Need to change mindset 	<ul style="list-style-type: none"> ◦ Better decision making ◦ Positive emotional change ◦ Stress reduction ◦ Increased goal striving ◦ Proactively engage in resolving thought inaccuracies ◦ More adaptive ways of thinking 	
<p>CMO 4 - Behavioural experiments</p> <p>PS4 - Designing behavioural experiments and reflecting on them during the session.</p>	<ul style="list-style-type: none"> ◦ Ability to spend time and effort 	<ul style="list-style-type: none"> ◦ Behavioural experiments and exposure ◦ Tangible and practical exercises ◦ Perform quality and feasibility checks ◦ Practice 	<ul style="list-style-type: none"> ◦ Reality testing of replaced beliefs ◦ Identify performance blocks ◦ Applicability and sense of purpose 	<ul style="list-style-type: none"> ◦ Construct new productive behaviour/s ◦ Integrate thoughts and behaviours in default mindset ◦ Reinforce behavioural adjustments 	

					<ul style="list-style-type: none"> ◦ Motivation for action ◦ Behavioural experiment completion
	<p>CMO 5 - Goal setting</p> <p>PS5 - SMART Goal Setting</p>	<ul style="list-style-type: none"> ◦ Having the courage ◦ Offering professional help ◦ Coach qualification and knowledge 	<ul style="list-style-type: none"> ◦ SMART goal setting and goal-directed action planning ◦ Create a discrepancy between the actual and desired state ◦ Proper case conceptualisation ◦ Elevating goal importance ◦ Defining acceptable levels of performance ◦ Dynamic goals flexible to change 	<ul style="list-style-type: none"> ◦ Facilitating self-regulation by indicating acceptable levels of performance ◦ Sense of ownership ◦ Sense of competence ◦ Sense of reassurance 	<ul style="list-style-type: none"> ◦ Enhanced self-regulation ◦ Accurate goal setting ◦ Goal commitment ◦ Goal initiation and increased striving ◦ Benchmark for feedback and monitoring ◦ Accommodating learning and development
	<p>CMO 6 - Progress monitoring and feedback</p> <p>PS6 - Goal-directed Action planning</p> <p>PS7 - Progress monitoring and weekly follow-ups through, Task management records and progress reflection sessions</p>	<ul style="list-style-type: none"> ◦ Workload 	<ul style="list-style-type: none"> ◦ Monitor progress and constructive feedback ◦ Report back thus serves as a reminder ◦ Holding coachee accountable ◦ Commitment renewal and agreement on corrective actions ◦ Counter argue provided excuse ◦ Give positive feedback and encouragement 	<ul style="list-style-type: none"> ◦ Plan for relapses and develop maintenance strategies ◦ Self-monitoring and self-evaluation ◦ Sense of urgency ◦ Sense of commitment, obligation and responsibility ◦ Reflect on pitfalls and points of improvement ◦ Sense of accomplishment ◦ Authenticity 	<ul style="list-style-type: none"> ◦ Relapse prevention ◦ Self-directed behavioural adjustment ◦ Progress continuity and consistency ◦ Constant learning and improvement ◦ Reinforce positive behaviour

	<p>CMO 7 - Progress evaluation</p> <p>PS8 - Progress evaluation conversation - quantify progress and compare differences in thoughts, emotions, and behaviours pre- and post.</p>	<ul style="list-style-type: none"> ◦ Work context 	<ul style="list-style-type: none"> ◦ Quantifying progress and reminding of accomplishment ◦ Highlight evidence of progress ◦ Seek the coachee's consent ◦ Distinguish between progress evaluation and coaching evaluation ◦ Broaden the self-evaluation scheme ◦ Link short-term progress with long-term plans 	<ul style="list-style-type: none"> ◦ Realise the extend of one's progress ◦ Avoid self-worth diminishing ◦ Enhance perceived return on investment and perceived benefit 	<ul style="list-style-type: none"> ◦ Mitigate negativity bias ◦ Enhance self-satisfaction ◦ Enhance overall satisfaction with coaching experience ◦ Informed decisions on future engagement with coaching <hr/> <p>(Negative outcomes)</p> <ul style="list-style-type: none"> ◦ Misconception between progress and coach's evaluation ◦ View progress as forced ◦ Reluctant to engage or disagree ◦ Overall dissatisfaction with coaching experience ◦ Inaccurate evaluation
	<p>CMO 10 - Organisational support</p>	<ul style="list-style-type: none"> ◦ Work context ◦ Managerial support 	<ul style="list-style-type: none"> ◦ Communication and acquire managerial support 	<ul style="list-style-type: none"> ◦ Perceived managerial support ◦ Sense of significance and credibility ◦ Sense of collectiveness 	<ul style="list-style-type: none"> ◦ Programme acceptance ◦ Enhanced commitment

	<p>CMO 9 - Programme logistics and implementation</p> <p>PS 10 – Session location PS11 – Session timings</p>	<ul style="list-style-type: none"> ◦ Work context 	<ul style="list-style-type: none"> ◦ Private location ◦ Programme being timebound and number of sessions needed 	<ul style="list-style-type: none"> ◦ Sense of support, respect and confidentiality ◦ Programme perceived as convenient and well-paced 	<ul style="list-style-type: none"> ◦ Accessibility with less effort ◦ Engagement ◦ Increase sense of utility per session <hr/> <p>(Negative outcomes)</p> <ul style="list-style-type: none"> ◦ Disengagement ◦ Decreased sense of utility per session
	<p>CMO 11- Post-coaching progress maintenance</p> <p>PS 12 – Post coaching checkpoints</p>	<ul style="list-style-type: none"> ◦ Work context 	<ul style="list-style-type: none"> ◦ Aligning programme objectives and work-related objectives ◦ Checkpoints post-coaching programme ◦ Integrate programme in org policies and systems 	<ul style="list-style-type: none"> ◦ Sense of importance ◦ Sense of collectiveness 	<ul style="list-style-type: none"> ◦ Programme acceptance ◦ Coachee's empowerment to take ownership of their development journey

Table 20: Summary of Synthesised CMOs

The CBC coaching experience was divided into seven processes that can take place interchangeably and iteratively depending on a coachee's needs. The seven processes were discussed under 3 main themes - the cognitive theme, behavioural theme and progression theme (Locke & Latham, 2006; Palmer & Szymanska, 2018). Programme theories in these themes explore what the CBC programme introduces as a resource that can work to achieve cognitive, behavioural or progression-related outcomes, and what might hinder these resources from producing the intended outcomes. They also explore how outcomes are produced (reasoning mechanism) and who will best benefit from these resources (Dalkin et al., 2015). This synthesis focuses on coachees' reasoning mechanisms, and other studies could expand to investigate the coach's reasoning and psychological factors that might equally impact the dyadic coaching relationship and coaching outcomes accordingly (Boyatzis et al., 2022; O'Broin & Palmer, 2009).

The cognitive theme is grounded in the premise that thoughts direct emotions and behaviours (Beck, 1991; Passmore et al., 2012). It covers mechanisms generated through coaching conversations and reflection exercises aimed at identifying and tackling cognitive biases and maladaptive thoughts (Palmer & Williams, 2013). The main refinement around coaching conversations exhibits how a coach guides the coachee's self-reflection to enable them to achieve targeted self-awareness, that is awareness specifically relevant to the topic being discussed (Cidral et al., 2021; Grant, 2022). This study suggests that the cognitive phase is only successful if the coachees themselves recognise their own psychological blocks and are fully convinced of the need for a mindset change. This perception facilitates the discussions and resolutions during the upcoming process which entails challenging the identified blocks and cognitive biases. This also aligns with the notion of psychological ownership discussed by Olckers (2016), and is seen to facilitate problem-solving and enhance self-determination for coachees. The key rival theories identified for these mechanisms focus on how methods used at this stage can sometimes be problem-focused and confrontational which might induce stress for the coachees (Dias et al., 2017). Additionally, in some cases, writing exercises were found to inhibit the coachee's ability to self-express (Grant, 2022).

This theme also addresses cognitive links with emotions and behaviours (Davis & Davis, 2016; Neenan, 2008a). The aforementioned mechanisms work conjointly with other resource mechanisms that were unpacked in this study and are related to the exploration of cognitive links to emotions and behaviours (Palmer & Williams, 2013). For instance, highlighting the links between one's emotional state and behaviour and focusing on beliefs being key drivers of emotional responses can help coachees reduce emotional reactivity (Jones et al., 2021). Thus, it might lead to attaining better emotional handling skills, which can result in improved self-regulation that can foster better use of an

individual's cognitive resources (Minzlaff, 2019). All processes included in the cognitive theme are largely moderated by the coach's abilities, qualifications and experience, in terms of the ability to pinpoint the key issues, ask the right questions and construct convincing arguments during the coaching conversation (Cidral et al., 2021). Finally, important considerations for coaches to be able to deploy self-directed techniques and exercises successfully (such as psychoeducation, mindfulness and relaxation techniques) include explaining the 'why' 'how' and 'what' behind their utilisation (Minzlaff, 2019).

The behavioural theme focuses on building adaptive behaviours that will counteract psychological blocks and cognitive biases and permit coachees to take concrete steps towards their required development outcomes (Palmer & Whybrow, 2018). This is manifested in two main programme aspects, conducting behavioural experiments and setting goals (Locke & Latham, 2006; Neenan, 2008a). The main aim of designing and conducting behavioural experiments is to integrate new thoughts and behaviours into a coachee's default mindset, through tangible actions and practice. It also aims to check for any further psychological or performance blocks that might hinder the adoption of the new mindset or behaviour (Palmer & Whybrow, 2018; Palmer & Williams, 2013). Consequently, the coachee can build a repository of adaptive behaviours that can be further used during goal striving. Similarly with goal setting, the coach works with the coachee to transfer development outcomes to a coachee's meaningful endeavours (Neenan, 2018). Theories from this study highlight the importance of constantly emphasising the goal value, significance and importance to the coachee to motivate action towards goal initiation (Grant, 2016a; Green et al., 2006). It also directs attention to the likelihood of goal initiation as an outcome within the context of professional support and help being provided.

Finally, the progression theme discusses theories relevant to two main areas, progress monitoring and progress evaluation. Progress monitoring entails the frequent, systematic tracking of activities relevant to the goal (Grant, 2017a; Locke & Latham, 2006). This serves as a reminder of one's commitment to the coach and oneself as well as a reminder of the importance of the goal, which triggers a coachee's self-monitoring, self-evaluation and self-directed behavioural adjustments (Gregory et al., 2011). Also, it provides an opportunity to receive encouragement and positive reinforcement which can motivate action as well as identify and remove performance blocks, and counter-argue any coachee's self-provided excuses (González, 2023). All these mechanisms are mediated by the contextual factors of the coachees' workload. However, regular follow-ups can help with coordinating actions and commitment flexibly with their workload, accounting for any

unforeseen circumstances (Cornell & Salisbury, 2024; Steelman et al., 2019).

Progress evaluation concerns the retrospective appraisal of the advancement made by the coach as a result of the entire coaching journey (Neenan & Dryden, 2013). Progress is a controversial issue within the coaching literature as it relies on individual and societal perceptions and definitions (Prescott, 2010). This research discussed the importance of clearly defining progress evaluation and what it entails to avoid mistaking it with neither the coach's evaluation nor self-evaluation (Locke & Latham, 2015). The former might lead the coachee to being reluctant or embarrassed to share their honest opinions and the latter might result in a reduction in the coachees' self-worth (Dinos & Palmer, 2015). A useful mechanism during this process is reminding the coachee of the accomplishments they made throughout the programme, which helps them mitigate any negativity bias (Burke, 2017). In conclusion, this theory features the value of concluding the coaching relationship by linking short-term progress with long-term plans to help the coachee see their return on investment and make informed decisions about their development and well-being journey (Clutterbuck & Spence, 2017; Weinberg, 2010).

Findings in Light of the Organisational Context

Programme Introduction

First is the reach domain which considers the number of potential participants for the programme and assesses their motives and reasons for participation or non-participation. This domain encompasses the evaluation of the recruitment process with its underlying mechanisms that can influence participants' motives and decisions to engage or disengage (Gaglio et al., 2013). For instance, recruitment processes can influence participants' readiness for change as reported by Roodbari, Axtell, et al. (2022). As theorised in CMO 8, communication (as part of programme introduction and recruitment) can affect participants' perceived potential of benefit which can trigger their curiosity and excitement and result in programme buy-in. This theory is congruent to findings from two systematic reviews. The first review discusses communication as one of the six contextual features to influence implementation outcomes of evidence-based practice, identified from 36 studies related to healthcare and organisational contexts (Li et al., 2018). The second review identified organisational communication as a factor that can reinforce employee's views of change, such as introducing new policies and systems, and their psychological mechanisms. It also discusses that communication is perceived to hold the organisation accountable for practices and policies which impacts employee's acceptance of perceived change (Khaw et al., 2023). However, this synthesis

further refined this theory highlighting that, if there was a sense of obligation triggered by this initial communication process on the coachee's behalf, it might hinder the coachee's perceived ability to take part freely and result in involuntary participation. This finding aligns with Roodbari, Nielsen, et al. (2022) reporting that if recruitment feels forced, participants might disengage and consequently might not engage with programme activities. This process is also found to be mediated by perceptions of power dynamics within organisations and trust considerations (Louis & Fatien Diochon, 2018; van Zyl et al., 2020). Theories about communication, power dynamics and trust can be further explored and refined in larger-scale realist evaluations. Additionally, other factors within the recruitment domain can be further investigated including other motivational factors to participate, barriers to participation and effective communication channels (Kessler et al., 2013).

Organisational Support

Third is the adoption domain which looks at the efforts made to initiate or adopt a new programme successfully and the rationale behind this decision. This can entail factors relevant to intervention providers and supporters in organisational contexts such as managers and policymakers (Gaglio et al., 2013). For instance, Busch et al. (2017) discuss how presenting feasible programme costs to management as part of their introduction to the idea can be a determining factor in gaining their support. Schelvis et al. (2016) compare the impact of middle management support as opposed to senior management, and how multi-level management support brings about different mechanisms for programme success. The scope of this study did not encompass cost implications or senior management support, which could be the focus of further research. CMO 10 discussed how the perception of organisational and managerial support can impact programme credibility and maximise buy-in. It is theorised that maintaining communication with management at various programme stages can foster their support in terms of re-organising work commitments to accommodate for programme activities and encouraging their team member's participation (Bozer & Jones, 2018). This study incorporated the impact of adoption related activities on programme outcomes on an individual level. This domain can be expanded in future research to incorporate adoption related activities on the organisational level in terms of gaining senior management support, gaining external support and assigning project champions and steering groups (Roodbari, Nielsen, et al., 2022).

Programme Logistics

The fourth dimension is implementation which looks at adherence to programme design and programme fidelity, taking into consideration adaptations and delivery consistency (Gaglio et al., 2013). This evaluation dimension closes the gap between planning and evaluation as it helps in identifying the differences between what was designed and what took place in real life and the reasons behind these differences, thus informing future programme design. Fidelity evaluation is crucial to judge whether programme failures or vulnerabilities should be attributed to poor implementation or theory choices, i.e. the programme theories developed are not adequate to address the issues at hand (Roodbari, Nielsen, et al., 2022; Schelvis et al., 2016). Roodbari (2022) proposes that fidelity can be a mechanism on its own as it can influence programme users' perceptions about the programme's credibility and thus maximise the potential for positive outcomes. In realist work, the concept of fidelity is re-articulated to represent the theory refinement process comparing provisional CMOs with empirical CMOs to support, refine or refute the proposed theory (Wong et al., 2017). As such, it is suggested that incorporating stakeholders in the programme evaluation process for CMO refinement and communicating through the teacher-learner cycle in realist interviews, can enhance programme fidelity and stakeholders' perceptions of programme credibility and utility (Manzano, 2016).

Roodbari (2022) also discusses, in addition to this aspect, the dose delivered, and dose received to represent the number of programme activities delivered to participants and the extent to which participants received and engaged with them. This helps assess the collective effect of programme activities on outcomes and explain how contextual factors can mediate the utility of the programme activities being offered. It is important to keep in mind realist scepticism of the term "dose" as it portrays participants as passive recipients when they are regarded as active contributors through the teacher-learner relationships (Pawson & Tilley, 2004). However, it is used here to convey the discrepancy between programme activities implemented and their perceived utility to participants. This notion is conveyed through CMO 9, which tackles the programme activities in terms of the coaching sessions and tackles the logistics of the implementation in terms of location, time and frequency. All participants received the same number of sessions but not all of them evaluated the sessions similarly. For instance, the choice of the coaching location can impact the coachee's decision to commit to the process and engage comfortably, and thus influence session utility (Carter et al., 2017). Another aspect is the time of the day in which the coaching sessions take place, as well as the frequency of these sessions per week (Blackman et al., 2016; Tompkins, 2018). There is no one-size-fits-all consensus on the number of coaching sessions required per coachee in the literature. Findings from this study also suggest that needs might vary depending on the complexity of the coachee's

goals, coachees' individual resources, their commitment and responsiveness as well as external life events and incidents occurring simultaneously at the time of the coaching (Carter et al., 2017; Mosteo et al., 2021). Thus, the coachee's perception of the coaching pace amongst all the aforementioned factors is a key reasoning mechanism that can either generate stress or maximise session utility for the coachee. Programme theories pertaining each factor can be further explored in larger evaluations to deepen our understanding of how such contexts can impact coaching programme implementation in the workplace.

Post Programme Maintenance

The final dimension is maintenance, which is construed on two levels the individual and organisational level (Gaglio et al., 2013). The individual level concerns the sustainment of long-term outcomes. CMO 11(a) addresses this notion by proposing the alignment of coaching objectives and content to work-related topics for the coachees to see the outcomes and experience their development first-hand. This allows the coachee to transfer learning outcomes from the sessions to long-term development (Müller & Kotte, 2020). Additionally, CMO 11 (b) aligns with concepts at this level as it suggests adding checkpoints post-programme finalisation for coachees to revisit their outcomes and progress as well as seek advice if needed, ensuring coachees acquire ownership of their development journey thereafter and that this development is sustained. The organisation level concerns the extent to which the programme is embedded within organisational policies and systems. According to Von Thiele Schwarz and Hasson (2013), organisational programme maintenance is achieved through strategic alignment of programme objectives with organisational aims and values as well as operational alignment of the programme with organisational daily practices. CMO 11 (c) in this synthesis touches upon strategic alignment as it presents how the integration of a coaching programme within organisational policies and systems can be a mechanism to trigger a sense of importance on the coachee's behalf and thus maximise engagement accordingly (Hawkins, 2012). However, further investigation of operational alignment is outside of the scope of this synthesis but could be incorporated into larger-scale evaluations.

In summary, this section provides a model for future research and practice to facilitate decisions about which coaching programme components to focus on (in terms of planning and evaluating), when, why and how. Hence, it increases the potential for programme success. Moreover, future investigations can expand to different coaching approaches, across different contexts to accumulate a knowledge base for building a foundation for evidence-based coaching practice (Hone et al., 2015).

Contribution to Organisational Programme Planning and Evaluation Knowledge

This research highlights important resources and mechanisms at different phases of CBC and addresses the gap in the literature concerning how coaching can be operationalised in organisations in an evidence-based manner. It provides tentative but detailed programme theories based on the literature reviewed and refined by empirical data; these theories can then be used as a stepping stone for future coaching interventions design and evaluation. As recommended by Salter and Kothari (2014), the refinement of theory can be a continuous process in a realist evaluation cycle. Thus, within the same organisation, testing iterations can continue, expanding on the sample size and data sources, until one can elicit and thoroughly explain desired outcome patterns for stakeholders (Greenhalgh, Pawson, & Wong, 2017b). Additionally, these evaluation cycles can also expand beyond the current organisational context to different organisations with various contexts, using the refined CMOs as initial theories for the design and evaluation of new programmes (Pawson & Tilley, 2004). Eventually, knowledge can be accumulated on how CBC specifically and coaching programmes generally, as well-being workplace interventions, work, or do not, for whom and in what context.

This research also contributes to the evaluation literature as it provides a detailed description of the realist synthesis process followed. For instance, it details how and when the literature and empirical-based CMOs were developed and used for programme design and evaluation. It describes how and when qualitative data were collected via realist interviews and how data were synthesised to support, refine or refute provisional CMOs in an organisational intervention (Wong et al., 2016). Thus, researchers can find an example of the realist synthesis process for their research in different contexts or to plan larger-scale evaluations.

Contribution to Coaching Theory

This study begins to answer some of the research gaps presented in the literature (Blackman et al., 2016; Boyatzis et al., 2022; Cotterill & Passmore, 2019). By utilising a realist methodology, as advocated by Kovacs and Corrie (2016), this study explores how in organisational contexts an evidence-based coaching approach works, or does not, for whom, in what circumstances and how. This section will discuss how this research contributes to the three main research gaps found in the literature.

The first gap is exploring coaching outcomes, i.e. what is desired by coaching, to determine its effectiveness (Greif, 2017). This thesis proposes initial theories about intended and unintended coaching outcomes and their mechanisms. For instance, it contributed to theorising how coaching generates outcomes previously presented in the literature such as satisfaction, goal attainment, well-being, cognitive change, behaviour change and self-awareness. It also theorised potential unintended outcomes such as elevated stress during the process, resistance, coachee's dissatisfaction and a sense of obligation to participate in coaching being offered by the employer (Schermuly & Graßmann, 2019). Thus, it highlights potentially interesting outcomes that can inform future research and be further investigated in mixed methods research to demonstrate measurable change (Pawson & Manzano-Santaella, 2012). This aligns with Boyatzis et al. (2022), who calls for studies looking at multiple outcomes to understand the interplay among potential mechanisms.

As argued by Boyatzis et al. (2022, p. 205), "the best research is predicated on sound theory". This study suggests a methodology to explore other possible outcomes, in a theory-driven manner, as per each distinctive context, and considering different stakeholders. The theory-driven realist approach is able to take advantage of the substantial theory available that typically includes clearly defined outcomes (Pawson et al., 2005). Thus, realist methodology allowed this research to incorporate literature and theoretical models from fields such as psychology, to inform the exploration of coaching research aiming to reach a consensus on the theoretical foundations of coaching (Hunter et al., 2022). Additionally, the versatility of exploring relevant coaching outcomes provided by the methodology granted the opportunity for this study to focus on well-being related outcomes. Consequently, this study counters the common criticism in coaching research of valuing outcomes related to individual and organisational performance over other important issues such as an individual's mental health and societal values (Grant, 2013).

Furthermore, by fostering stakeholders' engagement in the research process, this synthesis contributes to the understanding of the narratives relevant to desired and expected outcomes from

different stakeholder perceptions (Griffiths et al., 2022). Hence, choosing a qualitative method was beneficial, to prompt the narrative and encourage participants to share their experiences, as suggested by Manzano (2016). Similarly, the research addressed the call for understanding how different coaching approaches operate to produce outcomes using "less invasive measures than direct response surveys" to enhance credibility (Boyatzis et al., 2022, p. 204). In conclusion, these exploration opportunities provide a basis on which coaching effectiveness can be established, thus contributing to our knowledge of "Does coaching work?" and how (Passarelli et al., 2022).

The second research gap is related to exploring coaching processes and change mechanisms. This research provides a methodology that can be useful to further examine claims about different coaching approaches, and whether one is more effective than another in producing specific outcomes or within specific contexts (Grover & Furnham, 2016; Van Agteren et al., 2021). This study contributes to the coaching literature primarily by highlighting the interplay between the resources introduced by each coaching activity and the reasoning mechanism detailing the underlying psychological factors that trigger certain outcomes (Dalkin et al., 2015). Through qualitative inquiry into stakeholders' perspectives, the researcher was able to extract what De Haan and Nieß (2015) call "key moments" in coaching conversations such as moments of learning and awareness, emotional consciousness and motivation for action. The research also theorises how these moments can affect coaching outcomes. In addition, this synthesis attempts to detangle one of the prominent questions in coaching research, and similar areas, concerning the coaching 'dosage' needed (Boyatzis et al., 2022). This study developed a tentative programme theory highlighting the benefit of having the coaching relationship timebound with a focus on the coachee's perception of the frequency being well-paced and time being convenient (Mosteo et al., 2021; Ulrich, 2008). This synthesis also theorises that correct dosage determination relies on several factors and mechanisms; thus it cannot be investigated separately and generalised. Instead, it is important to consider the overarching view of the programme and the coachee's purpose and context at the time of the coaching. Similar to outcome exploration discussed in the first gap, realist methodology provides the researcher with methods and tools to investigate the same coaching process through the eyes of different stakeholders, helping uncover deeper mechanisms and identifying programme rivalries and vulnerabilities (Boyatzis et al., 2022; Jagosh, 2023a).

The third research gap is around clarifying the effects of various coaching contexts and across different cultures and how these variations can impact coaching results (Passmore, 2013). This study is the first coaching study to be conducted in Egypt, addressing another research need proposed by Boyatzis et al. (2022) and Lane et al. (2018) to conduct coaching studies with participants worldwide. The research findings present evidence on how the component of the organisational context

moderated the relationship between the resource introduced, the reasoning mechanism triggered and the resulting outcome (Dalkin et al., 2015). This approach permits research sensitivity to differences in context and differences that can result from coaching people from different groups. Eventually, following the same methodology in future research, coaching research and practice might move towards modifying coaching approaches to be more equally accessible and inclusive for all potential users.

Contribution to Practice: Practical Implications

Given the significance of knowledge mobilisation to realist research, this section highlights practical recommendations (Pawson, 2006b). It aims to articulate the practical advice contextually relevant to the funding organisation to provide them with insights based on their programme trial run on what works or does not for whom and in what circumstances (Porter & O'Halloran, 2012). Further, other general practical considerations (not specific to the researched organisation) for organisational coaching interventions will be discussed, followed by practical implications for coaches and coachees.

Starting with practice recommendations for policymakers within the researched organisation, this study presents two main proposals for upcoming coaching programme rounds. This study advocates for embedding the CBC programme into the company's over-arching policy framework, meaning integrating it with elements from other employee development policies such as performance management, career development planning and succession planning (Hawkins, 2012). This can aid in shaping a culture that emphasises the importance of its members' development, mental health, and well-being. This can also help cultivate the maximum return on coaching investment as it creates opportunities to provide resources and support for the coachees to conduct behavioural experiments, set real valuable goals and witness the impact of coaching in their daily work performance and development. Thus, this integration can provide a channel for coachees to transfer their learning and development from coaching to their work environments since they will have the opportunity to address real-life goals and challenges with coaching acquired skills (Gormley & van Nieuwerburgh, 2014). The second proposal for policymakers is to establish a monitoring and evaluation system for the coaching programme to periodically appraise the impact of these programmes from various stakeholders' points of view (Knowles & Knowles, 2021; Lawrence, 2017). This study provides a framework suitable for the establishment of a coaching programme evaluation system. Regular data collection of stakeholder feedback, especially from the coachees, allows constant refinement of the programme, adding to its effectiveness. Eventually, policymakers can attract employees' engagement

with such data-driven improvements (Salter & Kothari, 2014). This will also help policymakers gain insights into their resources and budgetary allocations and thus make informed decisions accordingly.

This study also includes practical implications for organisations concerning their employees/coachees. We recommend paying attention to raising employees' awareness, formally, through workshops and informational sessions, and informally through informal communication, to educate them about their mental health and the potential benefits of CBC (Shad, 2023). This can help potential participants understand the process, manage their expectations, and foster a desire for contribution. During this phase, it is important to assert voluntary participation and communicate clearly all confidentiality and anonymity measures taken (Lowman, 2013). This ensures avoiding any sense of obligation or pressures to conform that might hinder engagement and programme effectiveness. Simultaneously, it is also recommended to encourage employees to engage actively and take ownership of their development (Olckers, 2016). Finally, it is proposed that the organisation facilitates the creation of peer support networks as well as fosters and communicates managerial support to create a sense of collectiveness that can maximise acceptance and engagement.

While theory refinements from this study are largely based on empirical data from a single programme, practical recommendations can still be transferable to a certain degree to coaching interventions in other organisations. Initially, the aforementioned recommendations can be considered as suggestions for all organisations while planning any coaching intervention with the aim of further testing and refining theories to be fitted for the specific purpose and context of new programmes (Maxwell, 2017). Moreover, this study highlights how organisational conditions play a part in the success of individual-level interventions, as portrayed by the impact of contextual factors (such as workload, managerial support, power dynamics and providing a suitable time and place) for coaching mechanisms and its outcomes (Carter et al., 2017; Louis & Fatien Diochon, 2018; Schelvis et al., 2016). Consequently, other organisations need to consider the presented contextual factors and look for other significant ones while planning their interventions. Further, by theorising the potential mechanisms of how to use CBC to generate wellbeing related outcomes, this study provides practical steps for organisations to develop targeted programmes to address other issues including, burnout, work-life balance and lack of motivation (Geraghty, 2021; Haddock-Millar & Tom, 2019). Furthermore, the training material and toolbox incorporated in this research, along with the programme theories presented, can assist organisations in tailoring training and coaching programmes based on their needs.

Finally, this research has practical implications for the coaches. It can inform training programmes for coaches, as it provides empirically based training material and a toolbox (Appendix

5) that can be initially used, evaluated and improved to inform coaches' professional development and match programme aims in various contexts (Porter & O'Halloran, 2012). Correspondingly, the presented theories and methodology can be used by coaches to build and refine theories for their programmes and thus adopt an evidence-based approach to avoid the risk of malpractice (Porter & O'Halloran, 2012). Although this was not evident in the data however, from the researcher's experience as a coach as well as the coach's experience, this study suggests that it is beneficial for coaches to receive supervision and engage in reflexivity to improve their case conceptualisation along with other coaching skills (Bachkirova et al., 2020). This can be further investigated in future research.

Similarly, the training material, especially the toolbox, can be used as a way of equipping coachees, post-coaching, with tools to take ownership of their development and deal with maladaptive thoughts or behavioural patterns moving forward (Losch et al., 2016). The programme theories can also be used to educate the coachees about coaching interventions within organisations, in a teacher-learner cycle to manage their expectations. It can also be used by organisations to acquire initial feedback and employee's input in programme design and improvements (Manzano, 2016).

Research Strengths

To the researcher's knowledge, this research marks the first realist synthesis to study coaching programmes in organisational contexts with evidence from an actual programme trial in the real world. This study established and synthesised 11 programme theories that can improve our understanding of organisational CBC interventions, what works or does not, for whom in what circumstances and how. Presenting the CMO configurations in a simple linear and structured format allows researchers and practitioners to use it to develop their initial CMOs in a systematic manner. Along with the CMOs theorised in this study, the elicited theory can aid the future testing and refining of CBC programme theories based on unique organisational contexts (D'Lima et al., 2022; Pawson et al., 2004). The researcher recognises that not all programme theories will be equally significant during all programme implementation phases. Thus, dividing the programme theories into themes allows future researchers to select the most relevant and applicable theory matching their planning and/or evaluation stage, programme and research aims, unique contexts and intended outcomes. Hence, it enhances the study's external validity, as theories can be applied to, and further refined in other contexts (Nielsen & Miraglia, 2017). Additionally, this study used initial CMOs, developed through a literature review, to inform programme design, and followed this by examining the programme output to develop empirical CMOs that refined the initial CMOs. Thus, it provides an example of theory operationalisation to design programme components, in collaboration with stakeholders, such as the coach and the human resources team, considering different roles, perceptions and contexts. This

approach avoids relying solely on what Roodbari (2022, p. 124) referred to as “retrospective sense-making” of the programme and provides a prospective approach to programme design (Nielsen & Randall, 2013; Pawson et al., 2005).

Despite the small sample size in the second part of this study, another strength lies in using post-programme qualitative interviews to capture the complex interaction between context, resources and reasoning mechanisms that generate outcomes (Pawson, 2013). Supplementing the review with qualitative primary data aided in forming a more comprehensive perspective of the programme, using first-hand insights. This was further enhanced by data source triangulation as the data were gathered from different stakeholder groups, namely coachees, coaches and human resources teams (Carter et al., 2014). Moreover, the study focused on cognitive behavioural approaches to design an evidence-based coaching programme, hence aligning with the concept of theory adjudication advocated by Pawson et al. (2004), by focusing on the programme theories that best fit the required outcomes. Finally, this study contributes to increasing research from diverse cultures and languages, outside a Western context, which broadens our research perspective, deepens our understanding of coaching mechanisms and expands knowledge mobilisation. Also, as advocated by Boyatzis et al. (2022), this research might be regarded as a minor contribution to the United Nations action plan for individual and organisational well-being in communities all over the world (UN General Assembly, 2015).

Research Challenges and Limitations

This study is not without its limitations. To start, some challenges were encountered as part of doing research in the coaching field. Firstly, I faced resistance from participants, as interviews about their experience and the coaching outcomes were perceived as an evaluation of their efforts and thus it threatened their sense of effectiveness (Boyatzis et al., 2022). This was slightly mitigated by clearly conveying the purpose of the interview and following the teacher-learner cycle, however still, I acknowledge the potential risk of this erroneous perception impacting the data (Manzano, 2016). Secondly, this study did not include organisational results, such as the impact on employee performance or organisational culture, despite its importance to stakeholders, due to the small scale of the synthesis and the agreement between stakeholders of keeping the focus on programme design and well-being outcomes as an initial phase.

The study design imposes other limitations on theory contextualisation. Greenhalgh and Manzano (2022) argue that context in realist approaches is dynamic, shaping outcomes in complex ways based on individual circumstances and interactions within the programme setting. In the current study, the small sample size and limited use of quantitative data reduced the ability to fully explore the organisational contextual factors influencing CBC mechanisms. As Nielsen et al. (2022) highlight, the realist approach benefits from unpacking context in ways that capture individual and situational variations, which may be constrained by a smaller or synthesised dataset. Ebenso et al. (2019) further stress the value of detailed, context-specific accounts in understanding how programmes operate, particularly when a realist approach is used to explain mechanisms of change. They also stress the importance of "layering" context to identify distal (macro-level) and proximal (micro-level) factors that interact with mechanisms. Recognising these limitations in the current study clarifies the scope of insights into how specific contexts may interact with CBC mechanisms, thus aligning with recommendations for more nuanced realist analyses of programme contexts. For feasibility concerns, this study can not claim to be a realist evaluation due to its small scale too, therefore it only showcases an exercise of theory elicitation with stakeholder engagement. Thus, a larger-scale study, such as a realist evaluation using mixed methods, could be informative as the next research phase for the organisation.

Other methodological limitations were apparent in this study. Core challenges were encountered due to the complex nature of organisational interventions. CMO configurations rely on examining the interaction of contextual factors with resources introduced by the programme to understand the individual and collective reasoning of participants (Lacouture et al., 2015b). This includes their sensemaking, perceptions and reactions to see how it can impact intervention results (Dalkin et al., 2015; Roodbari, 2022). Collective reasoning highlights the process of forming judgments and decisions as part of a group, which might also impact individual reasoning (Roodbari, Nielsen, et al., 2022). First, this research did not investigate collective reasoning; it only focused on individual coachee reasoning and its impact on outcomes. Collective reasoning thus can be considered in larger evaluations. For example, future research can explore how the collective reasoning of employees at different levels in organisations can impact buy-in and engagement.

Second, the process of CMO configuration is various, and complex and can be unique in different organisations with diverse contexts and multiple mechanisms producing a multitude of arrays of outcomes configurations (Pawson, 2013). This complexity was challenging for the researcher to articulate, convey and explain clearly to provide an accurate picture of the complex causal links

found and theorised. Further, this complexity might impact the study's reproducibility, external validity, and standardisation. As discussed by Wong et al. (2017), realist synthesis has limitations on what can be delivered in terms of recommendations, as all findings are contextual and only portray demi-regularities with 'hard' (i.e. immutable and definitive) facts discarded. The study then provides at best tentative recommendations and guidelines for future coaching evaluation research. As such, findings can only be regarded as potential theories to be further tested in further research and are not generalisable. The results can be used as suggestions for provisional CMOs to be refined according to what fits specific organisational contexts, available resources, and stakeholders at the time of the research.

According to Pawson et al. (2005), realist approaches require a high level of experience in both research and practice domains. Thus, even future attempts to use this study as a base to build future evaluations have other implicit challenges. The application of realist methodology is very time and resource consuming, which might not suit the fast pace of the practical world (Roodbari, 2022). Additionally, the application of this methodology requires skills in developing initial programme theories, collecting data using realist methods, and analysing, configuring, and synthesising data over a long period of time. It also requires awareness of the complexity of mental health and well-being as well as the various coaching approaches available both in practice and literature to be able to extract causal relations between the context, mechanism, and outcomes. Consequently, this broad set of skills may necessitate the input of a team with different areas of expertise. Despite the remarkable supervision efforts invested in this study, it could have been improved by the contribution of other researchers including methodology and subject matter experts.

Also, future researchers are likely to encounter a challenge with attempting to deconstruct programme elements into theoretical components (Pawson, 2013). The researcher acknowledges that synthesising realist data involves a degree of subjectivity as the researcher attempts not only to detangle but also explain the overlaps between contexts, mechanisms, and outcomes. Although the RAMESES methodological guidelines are presented linearly, the process is highly iterative and overlapping in nature (Wong et al., 2015). This is another reason why future research could benefit from including more than one researcher to minimise subjectivity and navigate around the iterations more effectively.

As discussed by Pawson et al. (2005), there is always a limitation of how much can be covered with realist research. Pawson et al (2005) also flagged the risk of not being able to identify any demi-regularities or semi-predictable patterns of outcomes. Even if the researcher was able to find the most prominent demi-regularity, there is still a risk of it not being of value or significance to programme

users at this stage. This adds to the complexity of the evaluation process since realist researchers aim not only to uncover predictable patterns of outcomes but also ones that are of value to stakeholders. One of the limitations of this study is the inability to claim the identification of clear outcome patterns to the coaching programme but rather suggestions on potential patterns and guidelines on how to identify patterns in different contexts. Clearer outcome patterns can be produced as part of larger-scale evaluations, however, in this PhD project's context, the data collected were sufficiently informative to refine the initial programme theories.

This complexity also imposes a conflict between investigating the breadth of the programme elements and the depth needed to address the research questions fully. The breadth of the programme elements entails examining aspects of the entire programme implementation cycle from initiation to conclusion and maintenance. In-depth understanding entails exploring which resource triggered which reasoning mechanism, which contextual factor affects which mechanism and how, and whether one outcome is produced by a single causal link to mechanisms and contexts or whether multiple factors interplay. This study ascribed several outcomes to several mechanisms. However, another level of depth could be sought in future research, by exploring the causal links between each specific mechanism and its generated result (Lacouture et al., 2015a; Pawson & Tilley, 2004). Consequently, future programme evaluations might need to develop a pragmatic focus on the most relevant and valuable initial programme theory, or a group of them, based on the specifics of the research project and question. This will allow future researchers to explore their topics at the needed depth and answer research questions more comprehensively. If possible, organisations might consider multiple evaluation projects.

Additionally, although qualitative methods assist with capturing the required level of detail to understand causal links, this study could benefit from using quantitative methods to add an aspect of method triangulation (Busch et al., 2017; Carter et al., 2014). However, due to the small sample size in this synthesis, the researcher could not elicit sufficient data to enhance the synthesis's external validity or qualify the study as a realist evaluation and add a quantitative element. As such, quantitative data can be part of future larger evaluations. Additionally, due to the small sample size, the collected qualitative data might have not been rich enough to unpack fully the links between mechanisms and outcomes and uncover every possible relevant contextual factor as suggested by realist evaluation literature (Pawson & Tilley, 2004). Thus, the researcher acknowledges that the reported findings and programme theories might not be the same if there was an opportunity to expand the sample size as well as include other methods of data collection. Further, Pawson et al. (2005) suggest, there is a theoretical limitation to the nature and quality of the retrieved information. They explain that informal evidence reflecting power struggles, relationships and adverse contextual

factors that are essential to elicit factors of programme success or failure are harder to collect. This might lead the researcher to rely on judgment to uncover hidden mechanisms and identify possible theory rivalries and negative outcomes.

In conclusion, it is crucial to acknowledge the undeniable challenge of conducting this as a researcher and an insider in the funding organisation. My professional role imposed a major risk of influencing the research process and outcomes due to a potential conflict of interest. This risk was mitigated, as detailed in the positionality and reflexivity sections in Chapter 3, through constantly engaging in reflexivity and critical self-reflection along with regular research supervision. Additionally, to minimise influence on the research process, the design and implementation of the CBC programme was executed fully by an external coach, away from the researcher's control. Further, the training delivered to the external coach focused on the programme strategy, to inform the design and ensure the programme was evidence-based. Thus, the training excluded information related to expected reasoning or outcomes to avoid influencing the results. Furthermore, substantial refinements were made to the initial theories including reporting on negative and unintended outcomes along with other rival theories, which can address some of the aforementioned concerns. Finally, the synthesis phase was implemented and completed with no input or control from the funding organisation to avoid influencing the results.

Future Research Recommendations

Based on what was introduced in this paper, this section outlines recommendations for future research. The main methodological recommendation is for future researchers to use the work done in this synthesis and the explained approach to expand this study and turn it into a realist evaluation to test and refine the presented programme theories further (Pawson & Tilley, 2004).

Additionally, for a deeper understanding of the CMO configurations, the following categorisations are proposed. Adopted from Nielsen and Miraglia (2017), future researchers can categorise mechanisms into process mechanisms, looking into the design and implementation aspects of the programmes, as well as content mechanisms looking into the coaching content and action plans. Nielsen et al. (2022) and Karanika-Murray and Biron (2013) also introduce mental models that can be used to investigate further participants' individual and collective reasoning mechanisms and reactions to deepen our understanding of the coaching programmes' impact on their wellbeing. Another suggestion by Nielsen and Randall (2013) is to look at the 'omnibus' context, referring to general programme contexts such as work conditions at the time of the programme, and the 'discrete' context, defining any concurrent changes happening at the time of the programme implementation.

Moreover, it is recommended to explore the wide range of organisational resources, such as available finances, time and infrastructure, as well as individual resources, such as current levels of well-being, motivation and individual differences in knowledge and skill set, as part of the omnibus context as suggested by Roodbari, Nielsen, et al. (2022).

As for the research topic recommendations, the sustainability of coaching programme outcomes was ranked as the top priority for exploration by the funders of this study. Thus, it is recommended that further research focus on the long-term maintenance aspects at the individual level. It will also be useful to consider incorporating risk assessment methods as part of the programme design to prioritise and plan programme activities. This aspect was suggested by Roodbari, Nielsen, et al. (2022) as part of their realist evaluation framework to understand further how managers and employees perceive the programme and deal with any potential risk imposed by programme adoption. Finally, there are two more relevant topic recommendations following the lead of Boyatzis et al. (2022). This study touched upon coach abilities as a contextual factor that can impact coachees' experience in coaching. As a follow-up, it is recommended to consider directing research efforts to theorise and evaluate the needed competencies and qualifications required for effective coaching, given that there are no relevant published studies to date, as highlighted by Boyatzis et al. (2022). Also, since this study was conducted in Egypt, it sets the stage for research to explore how coaching works among different cultures. Other areas to explore could be gender, racial and cultural differences in coaching experiences, in the attempt to make research more inclusive.

Conclusion

This study is the first realist synthesis in the coaching and organisation intervention literature to develop programme theories exploring CBC programmes in organisational contexts. It intended to examine the aspects of CBC that work or do not in an organisational context, for whom, in what circumstances, how and why (Pawson et al., 2004). The research attempts to address these questions by unpacking CBC's diverse mechanisms that produce well-being related outcomes and how they are activated or hindered by organisational contexts. The study commenced with a realist literature review, following the realist review method presented by Pawson et al. (2005). Initially, seven provisional programme theories were hypothesised focusing on CBC techniques and mechanisms and how they were expected to produce certain outcomes. The initial programme theories were then used to design a coaching programme in collaboration with a consultancy company in Egypt. Upon the conclusion of the coaching programme, the researcher collected primary data through realist interviews to refine provisional theories, develop empirical CMOs and capture new insights into novel CMOs. A total of 11 CMOs have been developed in this study.

This study does not claim to yield final programme theories concerning the operationalisation of CBC programmes in organisations but it might be beneficial in several ways. First, future researchers can use the formulated theories to conduct a large-scale evaluation, incorporating mixed methods, and base their research on further theory testing and refinement. Researchers can also follow the presented approach to develop and evaluate initial programme theories addressing how different coaching mechanisms in specific contexts can produce intended or unintended outcomes. This study can be useful for practitioners and investors to design, implement and evaluate future evidence-based coaching programmes across different organisational contexts which enhance knowledge mobilisation and optimise organisational investments.

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Appendix 1: Search Strategy

Search Iteration 1

S-ID	Search Concept/Terms	Sensitive Search
S42	Cognitive behavioural coaching	TI ("cognitive behav*" OR cognitive-behav*) N5 (coach*)) OR AB ("cognitive behav*" OR cognitive-behav*) N5 (coach*)) Limiters - Publication Year: 2001-2022; Language: English
S40	Literature Review Systematic Review Meta-analysis Empirical Methods Method* Technique Intervention	(DE "Literature Review" OR DE "Systematic Review" OR DE "Empirical Methods") OR TI ((method* OR intervent* OR Techniq*) OR (review or meta-analysis or systematic review)) OR AB ((method* OR intervent* OR Techniq*) OR (review or meta-analysis or systematic review))
S43	Compiled Search	S40 AND S42

Search Iteration 2

S-ID	Search Concept/Terms	Sensitive Search
S1	Cognitive Behavioral Coaching	(DE "Coaching Psychology" OR DE "Coaching") OR TI ("cognitive behav*" OR cognitive-behav*) N5 (coach*)) OR AB ("cognitive behav*" OR cognitive-behav*) N5 (coach*)) Limiters - Publication Year: 2001-2022; Language: English
S2	Goal Attainment and employee Productivity	(DE "Achievement Motivation" OR DE "Approach Behavior" OR DE "Goals" OR DE "Reasoned Action" OR DE "Behavioral Intention" OR DE "Motivation" OR DE "Planned Behavior" OR DE "Productivity" OR DE "Employee Productivity" OR DE "Procrastination") OR TI (("goal*" or goal*) N5 ("achiev*" OR achiev* OR "attain*" OR attain* OR "complete*" OR complete* OR "fulfill*" OR Fulfill* OR "accomplish*" OR accomplish OR "realize*" OR "Realize*" OR "Reach*" OR Reach OR "success*" OR success*)) OR ((employee* N5 (or productiv*)) OR (procrast*)) OR AB (("goal*" or goal*) N5 ("achiev*" OR achiev* OR "attain*" OR attain* OR "complete*" OR complete* OR "fulfill*" OR Fulfill* OR "accomplish*" OR accomplish OR "realize*" OR "Realize*" OR "Reach*" OR Reach OR "success*" OR success*)) OR ((employee* N5 (productiv*)) OR (procrast* or "procrast*")) + Limiters
S3	Employee Well-being	(DE "Employee Well Being" OR DE "Life Satisfaction" OR DE "Quality of Life" OR DE "Well Being" OR DE "Self-Evaluation") OR AB (well-being OR wellbeing OR wellness OR happiness OR (life N5 (satisf* or eval*)) OR QOL OR (quality N5 life) OR ("self*") N5 "eval*" or "worth")) OR TI (well-being OR wellbeing OR wellness OR happiness (life N5 (satisf* or eval*)) OR QOL OR (quality N5 life) ("self*") N5 "eval*" or "worth")) + Limiters
S4	Self-limiting Belief Self-defeating Behavior	((DE "Self-Defeating Behavior" OR DE "Self-Handicapping Strategy" OR DE "Fear of Success" OR DE "Behavior" DE "Self-Destructive Behavior" OR DE "Behavior Change" OR DE "Behavior Problems" OR DE "Performance" OR DE "Productivity")) OR TI (((self-defeat* OR "self defeat*" OR Self-Handicap* OR "self handicap*" OR self-dest* OR "self-dest*" OR limit* OR "limit*")) N20 (behav* OR strateg* OR belie*)) OR ((fear OR afraid) N20 success*) OR ((behave* OR Perform* OR Product*) N20 (change OR Prob* OR Challenge*)) OR AB (((self-defeat* OR "self defeat*" OR Self-Handicap* OR "self handicap*" OR self-dest* OR "self-dest*" OR limit* OR "limit*")) N20 (behav* OR strateg* OR belie*)) OR ((fear OR afraid) N20 success*) OR ((behave* OR Perform* OR Product*) N20 (change OR Prob* OR Challenge*)) + Limiters
S5	Compiled	S1 AND (S2 OR S3 OR S4)

Appendix 2: Sample Articles appraisal and relevance assessments

Included Reference	Study Design	Intervention Description	Relevance	Rigour	Richness
Cavanagh and Palmer (2006)	Other (Does not involve empirical evidence)	N/A	Low	No Value	Low
Beddoes-Jones and Miller (2007)	Qualitative	Short-term executive cognitive behavioural coaching intervention	High	Low	Low
Neenan (2008b)	Other (Does not involve empirical evidence)	N/A	Low	No Value	Low
Wallace (2008)	Other (Does not involve empirical evidence)	Life Coaching - Cognitive Behavioural Approach	High	No Value	Moderate
Palmer (2009a)	Other (Does not involve empirical evidence)	Deserted Island Technique	High	Low	High
Forker (2010)	Other (Does not involve empirical evidence)	N/A	Low	No Value	Low
Gyllensten et al. (2010)	Qualitative - Interpretative Phenomenological Analysis	Cognitive coaching/CBC	High	Moderate	Moderate
Dryden (2011)	Other (Does not involve empirical evidence)	life coaching: A rational-emotive and cognitive behaviour therapy (RECBT) approach	Moderate	No Value	High
Anstiss and Passmore (2012)	Other (Does not involve empirical evidence)	Motivational Interviewing	Low	No Value	High
Gardiner et al. (2013)	Quantitative (including RCTs/Quasi-experiments)	A 9-hour cognitive behavioural coaching program.	High	High	Low
O'Riordan (2013)	Other (Does not involve empirical evidence)	N/A	Low	No Value	Low

Grant (2015)	Other (Does not involve empirical evidence)	N/A	Moderate	No Value	Low
David (2016)	Other (Does not involve empirical evidence)	Evolution of cognitive behavioural coaching in organisations: an interview	High	No Value	Moderate
David and Breitmeyer (2016)	Other (Does not involve empirical evidence)	Life Coaching	Low	No Value	Low
Breitmeyer (2016)	Other (Does not involve empirical evidence)	N/A	Low	No Value	Low
VanDyke and Armstrong (2017)	Other (Does not involve empirical evidence)	Very Brief Cognitive Behavioural Coaching	High	No Value	Low
Gottschalk et al. (2019)	Programme Evaluation	8-12 sessions of Career focused CBC programme	Moderate	Low	High
Lungu et al. (2021)	Quantitative (including RCTs/Quasi-experiments)	Structured, cognitive behavioural coaching (CBC) programme delivered through video or telephone.	High	Moderate	Low

Appendix 3: Data Extraction Form

Data extraction form is adapted to this research from (Brown et al., 2021).

Title: _____ Author: _____ Year: _____

Journal Title: _____

Choose a publication type:

- Original/Primary Research
- Editorial or Commentary
- Education/Innovation Report
- Systematic Review or Other Literature Synthesis
- Dissertation/Thesis
- Book/e-Book
- Other (please specify) _____

Study Design

What is the Study Design?

- Experimental (randomized controlled trial/quasi-experimental)
- Longitudinal Design (i.e., cohort study; Pre/Post without control group)
- Qualitative Study
- Mixed Methods Study
- Programme Evaluation
- Systematic Review (or other kind of review such as Scoping/Realist Review)
- Descriptive Case Study or Educational Innovation Report
- Not applicable - commentary, editorial, or other article that does not involve empirical evidence
- Other (Please specify) _____

Study Design Comments: _____

Country in which study was conducted: _____

Study Sample/Focus: _____

Number of Participants: _____

Study Sample Comments: _____

Context

Institution / Organisation Description: _____

Programme Description: _____

Programme objectives/Aims: _____

Information about Coaches and coach's qualifications: _____

Mechanisms

Description of Coaching Methodology: _____

Coaching Duration and Timing: _____

Success Measures / Use of established instruments: _____

Outcomes

Reactions / Satisfactions: _____

Attitude / behaviour change: _____

Change in knowledge/Skills: _____

Changes in Organisational Processes: _____

Other benefits to coachees (Productivity): _____

Benefits to third party: _____

Appraisals and Evaluations

1. What Worked?
2. Challenges (What did not work?)
3. Assessment of Rigour (1-5)

Please assess the rigour of the article. For editorials/commentaries on a scale of 1-5, where: 1 = no rigour whatsoever, 2 = poor, 3 = fair, 4 = good, 5 = exceptional. Editorials and commentaries should be considered a "1" since there is no experimental or empirical aspect. Studies that involve well-designed empirical research on participants would be considered a 5.

4. Assessment of Relevance to Realist Review Goals and Programme Theories (1-5)

How relevant is this article to the goals of this realist review in refining the programme theory? The goal of the review is to produce an inductive, refined programme theory that visualises how contextual factors and underlying mechanisms in CBC interventions influence the well being of employees. commentaries on a scale of 1-5, where: 1 = no rigour whatsoever, 2 = poor, 3 = fair, 4 = good, 5 = exceptional

5. Assessment of Richness (1-5)

Does the research support the conclusions drawn from it by researcher/reviewer?

Appendix 4: List of relevant articles for the realist review

	Authors	Title	Reference Type	Study Type & Number of Participants	Participants Settings	Intervention Description	Coaching Duration & Delivery Mode	Country	Outcomes	Informed CMOs
1.	Jonsson (2003)	Review of Life Coaching: a Cognitive-Behavioural Approach	Book Review	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
2.	Grant (2003)	The impact of life coaching on goal attainment, metacognition and mental health	Quantitative	Within-subjects pre-post study n = 20 split Measure: Goal Attainment Scale (GAS), Depression Anxiety and Stress Scale (DASS-21), The Quality of Life Inventory (QOLI), The Self-Reflection and Insight Scale (SRIS)	Postgraduate students	Group CBC coaching sessions	50 minutes – 10 weekly sessions	Australia	Increased goal attainment. Reduction in depression, anxiety and stress. Enhanced quality of life. Increased levels of insight. Decreased levels of self-reflection.	CMO 1 CMO 2 CMO 3 CMO 5 CMO 6 CMO 7

3.	Green et al. (2006)	Cognitive-behavioural, solution-focused life coaching: Enhancing goal striving, well-being, and hope	Quantitative	Experimental between-subjects design Coaching group n = 18 Waitlist control group n = 28 Measures: Personal goals questionnaire and goal striving, Subjective well-being using the satisfaction with life scale and the positive (SWLS) and negative affect scale (PANAS), 14-item scale of psychological well-being (Ryff, 1989), The hope trait scale.	Undefined	Cognitive-behavioural, solution-focused life coaching group programme.	Full day workshop + 60 minutes – 9 weekly group meetings	Australia	Increase in goal striving progression, higher satisfaction with life, Increase in positive affect, decrease in negative affect, increase in subjective well-being, Increase in personal growth, environmental mastery, positive relations with others, purpose in life, self acceptance and autonomy. Increase in pathway thinking, agency and total hope.	CMO 3 CMO 5
4.	Beddoes-Jones and Miller (2007)	Short-term cognitive coaching interventions: Worth the effort or a waste of time?	Mixed Methods	Mixed Methods Case study n = 8 Measure: Online Thinking Styles® questionnaire	Managerial & leadership positions in banking, private sector consultancy, further education and public utilities	Short-term executive cognitive behavioural coaching intervention	60 minutes – 4 phone coaching sessions	Undefined	Increased self-awareness and Increased self-confidence	CMO 2

5.	Kearns et al. (2007)	A cognitive behavioural coaching intervention for the treatment of perfectionism and self-handicapping in a nonclinical population	Quantitative	Quasi-experimental study pre-post design n = 28 Measure: 5-point scale, participants indicated their level of satisfaction with the progress, Multidimensional Perfectionism Scale (MPS), Perfectionism Cognitions Inventory (PCI), Self-Handicapping Scale (SHS)	High degree students	Intensive CBC workshop series.	2.5 hours introduction workshop 2 hours – 5 workshops weekly 1 hour – 1 follow-up workshop	Australia	Increased satisfaction with progress, Reduction in perfectionistic cognitions (especially cognitive inaccuracies regarding concern over mistakes and personal standards), Reduction in self-handicapping post workshop	CMO 1 CMO 3 CMO 4
6.	Kemp (2008)	Self-management and the coaching relationship: Exploring coaching impact beyond models and methods	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
7.	Neenan (2008a)	From cognitive behaviour therapy (CBT) to cognitive behaviour coaching (CBC)	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 6

8.	Palmer and Szymanska (2008)	Cognitive behavioural coaching: An integrative approach	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3
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9.	Spence et al. (2008)	The integration of mindfulness training and health coaching: An exploratory study	Quantitative	<p>Crossover design, MT-CB Group n = 14 CB-MT Group n = 15 Health Education Seminars Group (GHE) n = 13</p> <p>Measures: Goal attainment scaling, Mindful Attention Awareness Scale (MAAS), Depression Anxiety and Stress Scale (DASS-21), 5-item Satisfaction with Life Scale and two subscales from the Scales of Psychological Well-Being (environmental mastery, self-acceptance) (Ryff, 1989), Rumination-Reflection Questionnaire (RRQ)</p>	Undefined	Mindfulness training MT and cognitive-behavioural, solution-focused (CB-SF) coaching	<p>Goal Setting Workshop + four weeks of MT four weeks of one-on-one coaching (using a blend of face-to-face and telephone-based instruction or coaching)</p>	Australia	<p>Significantly higher goal attainment for MT-C group compared to GHE and No significant difference between MT-C and C-MT groups.</p> <p>MT-C group had significant increases in mindfulness scores. C-MT and GHE groups showed increases, but not significant.</p> <p>Significant decrease in anxiety and stress for MT-C group. Significant decrease in stress for C-MT group. No significant changes for GHE group.</p> <p>No significant difference in well-being scales or metacognition (RRQ) for all groups.</p>	CMO 1 CMO 2 CMO 4 CMO 5 CMO 6 CMO 7
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10.	Wallace (2008)	Review of Life Coaching: A Cognitive Behavioural Approach	Book Review	N/A	N/A	N/A	N/A	N/A		CMO 2 CMO 3 CMO 4 CMO 5 CMO 6
11.	Karas and Spada (2009)	Brief cognitive-behavioural coaching for procrastination: A case series	Quantitative	A case series employed an A-B direct replication across participants' design with follow-up n = 7 Measures: Decisional Procrastination Scale (DPS), General Procrastination Scale (GPS)	Undefined	Brief cognitive-behavioural coaching programme for procrastination.	60 minutes – 5 weekly session	United Kingdom	Significant reductions on the DPS and GPS over the course of coaching and these reductions were largely maintained at follow-up.	CMO 4
12.	O'Broin and Palmer (2009)	Co-creating an optimal coaching alliance: A Cognitive Behavioural Coaching perspective	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 6
13.	O'Donovan (2009)	CRAIC—A model suitable for Irish coaching psychology	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3 CMO 6 CMO 7

14.	Palmer (2009a)	Deserted Island technique: Demonstrating the difference between masturbatory and preferential beliefs in cognitive behavioural and rational coaching	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 2 CMO 3 CMO 5
15.	Palmer (2009b)	Rational coaching: A cognitive behavioural approach	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3
16.	Gyllensten et al. (2010)	Experiences of cognitive coaching: A qualitative study	Qualitative	Qualitative Study – semi-structured interviews n = 10	Managerial positions in a private company, a government body, and a school	Cognitive coaching/CBC	Sessions varied in Length from 4 to 15 sessions	Sweden	Main themes, increased awareness, increased cognitive and emotional knowledge, and doing things in a new way.	CMO 1 CMO 2 CMO 3 CMO 4 CMO 5 CMO 7

17.	Dryden (2011)	Dealing with clients' emotional problems in life coaching: A rational-emotive and cognitive behaviour therapy (RECBT) approach	Book	N/A	N/A	N/A	N/A	N/A	N/A	CMO 2
18.	Collard and McMahon (2012)	Mindfulness-based cognitive behavioural coaching	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3 CMO 4 CMO 5 CMO 7
19.	Neenan (2012)	Socratic questioning	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 4
20.	Neenan and Palmer (2012)	Book - Cognitive Behavioural Coaching in practice: An evidence-based approach	Book	N/A	N/A	N/A	N/A	N/A	N/A	
21.	Palmer and Williams (2012)	Struggles with low self-esteem: Teaching self-acceptance	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3 CMO 4 CMO 6

22.	Gardiner et al. (2013)	Effectiveness of cognitive behavioural coaching in improving the well-being and retention of rural general practitioners	Quantitative	Quasi-experimental study Intervention group n = 69 Baseline group n = 205 Control group n = 312 Measure: 10-item scale to measure distress, Intention to leave, Retention rate.	Rural GPs	Cognitive behavioural coaching - both group and individual coaching	Eight coaching workshops were conducted over a 3-year period. No information given on sessions	Australia	Reduction in stress, Moderate decrease in intention to leave following. Coaching, Grater rate of retention over time for the coaching participants.	CMO 3 CMO 4 CMO 5 CMO 6 CMO 7
23.	Hultgren et al. (2013)	Can cognitive behavioural team coaching increase well-being?	Protocol	N/A	N/A	N/A	N/A			
24.	Palmer and Williams (2013)	Cognitive behavioural approaches	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 6
25.	Neenan and Dryden (2014)	Life coaching: A cognitive behavioural approach, 2nd ed	Book	N/A	N/A	N/A	N/A			
26.	Dinos and Palmer (2015)	Self-esteem within cognitive behavioural coaching: A theoretical framework to integrate theory with practice	Other (Commentary/ Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3

27.	Grant (2015)	Coaching the brain: Neuroscience or neuro-nonsense?	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
28.	Breitmeyer (2016)	Cognitive behavioural coaching and its assessment tools: A brief review	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
29.	David (2016)	The foundations and evolution of cognitive behavioural coaching in organisations: An interview with Dominic DiMattia	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3

30.	David and Cobeanu (2016)	Evidence-based training in cognitive-behavioural coaching: Can personal development bring less distress and better performance?	Quantitative	Pre- to post-training comparisons online survey n = 102 Measures: The Profile of Emotional Distress (PED), Work performance through reporting on % of target realisation, General Attitudes and Beliefs Scale–Short Form (GABS-SF), Quality of self-monitoring assessed by programme director.	Work or Study in a psychology-connected domain (e.g. Departments of HR, educational institutions, and private practice)	Post-graduate course in coaching.	Training Programme in CBC	Romania	Significant reduction in depressed mood and significantly higher work performance with no significant change in general distress. Significant changes in general irrational beliefs and particularly on the following contents: demandingness (achievement, approval, comfort, and fairness) and Global evaluation of self (GE/S) and others (GE/O). No significant change in rational beliefs.	CMO 1 CMO 3 CMO 4 CMO 6
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31.	David et al. (2016)	Coaching banking managers through the financial crisis: Effects on stress, resilience, and performance	Quantitative	Pre-post design n = 59 Measures: Performance KPIs by performance appraisal system, Profile of Emotional Distress (PED), General Attitudes and Beliefs Scale–Short Form (GABS-SF), Manager Rational and Irrational Beliefs Scale (M-RIBS).	Middle managers in an Italian multinational banking group	Coaching workshop and cognitive-behavioural executive coaching session.	5 hours workshop + 1 – phone coaching session (duration unspecified)	Italy	Significant reduction in the level of depressed mood, No significant change in overall distress Significant improvement in levels of managerial soft skills, no significant change in overall performance Significant decrease in irrational beliefs and a significant increase in rational beliefs.	
32.	Gavriel (2016)	Cognitive Behavioural Coaching principles and basic tools to support trainees	Other (Commentary/ Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3

33.	Hultgren et al. (2016)	Developing and evaluating a virtual coaching programme: A pilot study	Quantitative	Pilot Study Pre-post online questionnaires n = 9 Measures: The Personal Wellbeing Index (PWI)	Managerial and admin employees within health and safety and health organisations	Virtual coaching programme using cognitive behavioural coaching (CBC) model – Self-coaching.	6-week coaching	United Kingdom	Significant improvement across all seven PWI domains containing items of satisfaction, each one. corresponding to a quality-of-life domain: standard of living, health, achieving in life, relationships, safety, community-connectedness, future security.	CMO 1 CMO 4 CMO 5 CMO 6
34.	Yalçın (2016)	A coaching-based management model for eliminating performance interferences problem-reality-action (PRA)	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3 CMO 4 CMO 5 CMO 6 CMO 7

35.	Bristol-Faulhammer (2017)	The Efficacy of Different Values Interventions in Transformative Meaning Making and Transition	Descriptive Case Study	Descriptive Case Study n = 6	Adults in professional transitions (i.e. finding a new career)	Value Coaching – targeting cognitive and emotional engagement	8 weeks	US, Austria	Participants engaged in a process of understanding and making sense of their significant experiences by crystallizing their motivational, aspirational, and concerning values. This involved articulating their experiences through language and linking these to specific emotional frames.	CMO 1 CMO 3
36.	Dias et al. (2017)	Integrating positive psychology and the solution-focused approach with cognitive-behavioural coaching: The integrative cognitive-behavioural coaching model	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3 CMO 4 CMO 6
37.	Dryden (2017)	Very brief cognitive behavioural coaching (VBCBC)	Book	N/A	N/A	N/A	N/A	N/A	N/A	

38.	Grant (2017a)	Solution-focused cognitive-behavioural coaching for sustainable high performance and circumventing stress, fatigue, and burnout	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 4 CMO 5 CMO6
39.	Gottschalk et al. (2019)	Cognitive-behavioural coaching: Report of a brief career intervention in university-work transition	Protocol	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3 CMO 5 CMO 7
40.	Minzlaff (2019)	Organisational coaching: Integrating motivational interviewing and mindfulness with cognitive behavioural coaching	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3 CMO 4 CMO 5

41.	Ogba et al. (2020)	Effectiveness of SPACE model of cognitive behavioural coaching in management of occupational stress in a sample of school administrators in South-East Nigeria	Quantitative	<p>A randomized wait-list control trial design with pretest, post-test, and follow-up assessments Intervention group n = 33 Waitlist Group n = 32</p> <p>Measures: single-item measure of stress symptoms (SISQ), Occupational Stress Index (OSI), Perceived Occupational Stress Scale (POSS), Stress Symptom Scale (SSS)</p>	School administrators from secondary schools in South Nigeria	Group SPACE-CBC model training program.	90 minutes – 12 weekly sessions	Nigeria	<p>No significant difference between the intervention and wait list groups on all scales.</p> <p>Post-test assessment: No significant reduction in OSI scores for the Intervention group compared to the waitlist grp at the post-test. Significant reduction in perceived occupational stress (POSS) and stress symptoms (SSS) for intervention group at post-test.</p> <p>Follow up assessment: Slight reduction in OSI scores from post-test to follow up. Maintained significant reduction in POSS and SSS scores.</p>	CMO 1 CMO 3 CMO 7
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42.	Jones et al. (2021)	The effects of a cognitive-behavioural stress intervention on the Motivation and psychological Well-being of senior UK police personnel	Quantitative	<p>Quasi-experimental study between and within-subjects pre-post design Experimental group n = 24 Control group n = 26</p> <p>Measures: The Irrational Performance Beliefs Inventory (iPBI), The Basic Psychological Need Satisfaction in General Scale, An adapted version of the Sport Motivation Scale (SMS), Hair samples taken from the scalp were used to extract cortisol as an objective biomarker of chronic stress</p>	UK country police organisation	One-to-one CBC sessions	60 minutes – 8 Sessions over 12 weeks	United Kingdom	<p>Significant reduction in irrational beliefs and improvement in basic psychological needs satisfaction scores.</p> <p>No significant change in self-determined motivation or cortisol levels.</p>	ALL
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43.	Lungu et al. (2021)	Effectiveness of a cognitive behavioural coaching program delivered via video in real-world settings	Quantitative	<p>Quasi-experimental study – using retrospective data on n = 289 subjects</p> <p>Measures: K6 is a six-item dimensional measure of nonspecific psychological distress on a five-point Likert scale, Perceived Stress Scale (PSS), Warwick-Edinburgh Mental Well-being Scale (WEMWBS)</p>	Employees or dependants of companies partnering with a health organisation delivering coaching services	Structured, cognitive behavioural coaching (CBC) programme delivered through video or telephone.	45 minutes – 6 virtual sessions	United States	Significant reduction in perceived stress, Significant improvement in mental health and well-being scores. High satisfaction rates among participants about their experience.	CMO 1 CMO 2 CMO 3 CMO 4 CMO 5 CMO 7
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44.	Wang et al. (2021)	The effectiveness of workplace coaching: a meta-analysis of contemporary psychologically informed coaching approaches	Meta-analysis	N/A	N/A	CBC, GROW, positive psychology coaching (PPC) and integrative approaches (e.g. CBC combined with Solution Focused Coaching).	N/A	N/A	Psychologically informed coaching approaches lead to effective work-related outcomes, especially in goal attainment (effect size $g = 1.29$) and self-efficacy (effect size $g = 0.59$). These coaching frameworks have a greater impact on objective work performance rated by others (e.g., 360-degree feedback) than on coachees' self-reported performance. Cognitive behavioural-oriented coaching enhances individuals' self-regulation and awareness, promoting work satisfaction and sustainable changes. No statistically significant difference was found between popular and commonly used coaching approaches.	ALL
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									An integrative coaching approach, combining different frameworks, produced better outcomes (effect size $g = 0.71$), including improvements in coachees' psychological well-being.	
45.	Willson (2021)	Cognitive-behavioural coaching	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 4 CMO 6

List of articles included through berry picking and sources skimming.

	Authors	Title	Reference Type	Study Type & Number of Participants	Participants Settings	Intervention Description	Coaching Duration & Delivery Mode	Country	Outcomes	Informed CMOs
46.	Latham and Locke (1991)	Self-regulation through goal setting	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 6 CMO 7
47.	Palmer and Edgerton (2005)	SPACE: A psychological model for use within cognitive behavioural coaching, therapy, and stress management	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
48.	Locke and Latham (2006)	New directions in goal-setting theory	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 6 CMO 7

49.	Neenan and Palmer (2006)	Cognitive behavioural Coaching: The cognitive behavioural coaching model explained	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 3
50.	McMahon (2007)	Understanding cognitive behavioural coaching: a historical perspective.	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1
51.	Williams et al. (2010)	Cognitive behavioural coaching	Book Chapter	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 5
52.	Carvalho et al. (2018)	Cognitive-Behavioural Coaching: Applications to Health and Personal Development Contexts	Other (Commentary/Editorial/Does not involve empirical evidence)	N/A	N/A	N/A	N/A	N/A	N/A	ALL
53.	Neenan (2018)	Cognitive Behavioural Coaching: Distinctive Features	Book	N/A	N/A	N/A	N/A	N/A	N/A	CMO 1 CMO 2 CMO 3 CMO 4 CMO 5

List of articles that were initially relevant through (title and abstract screening) but did not inform /support/ refine/ refute initial programme theories.

	Authors	Title	Reference Type
1.	Cavanagh and Palmer (2006)	Editorial - The theory, practice and research base of Coaching Psychology is developing at a fast pace	Other (Commentary/Editorial/Does not involve empirical evidence)
2.	Neenan (2008b)	Introduction to the special issue on cognitive-behavioural coaching	Other (Commentary/Editorial/Does not involve empirical evidence)
3.	Forker, (2010)	Coaching interventions	Other (Commentary/Editorial/Does not involve empirical evidence)
4.	Anstiss and Passmore (2012)	Motivational interviewing	Book Chapter
5.	O'Riordan, Siobhain (2013)	Editorial	Other (Commentary/Editorial/Does not involve empirical evidence)
6.	David and Breitmeyer (2016)	Life coaching: An introduction to the special issue	Other (Commentary/Editorial/Does not involve empirical evidence)
7.	(VanDyke & Armstrong, 2017)	Very brief cognitive behavioural coaching: Using the working alliance to pursue greater psychological health in a few sessions	Book Review

Appendix 5: Training Materials

Slide 1

Introducing CBC in the workplace.

A joint Well-being and Talent Development Initiative with Lancaster University




 



Slide 2

Training Outline

- ▶ 1. Setting the Scene
 1. Organizational Factors
 2. Coachee Attributes
 3. Coach Attributes
 4. Coaching Relationship
- ▶ 2. Kicking-Off the Coaching Relationship
 1. The Cognitive theory model
 2. The ABCDE model
 3. Case Conceptualization Key Steps
- ▶ 3. Cognitive Re-orientation Stage
 1. Identifying Psychological Blocks
 2. Challenging Irrational Beliefs
 3. Self-Directed Mental Techniques
 4. Replacing Irrational Beliefs
- ▶ 4. Behavioral Stage
 1. Designing Behavioural Experiments
 2. SMART goal setting and action planning
 3. Monitoring and Feedback

Tool-box Key

- ▶ Potential Bias 
- ▶ Measurement Scale 
- ▶ Fill-in-Form 



CBC Programme

Toolbox

CBC Programme

Toolbox

1.1 Adapted Motivation Scale

Adapted Sport motivation scale - The SMS consists of seven subscales of four items each, that measure intrinsic motivation (to know, to accomplish things, and to experience stimulation), extrinsic motivation (identified, introjected, and external), and amotivation.

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practising your goal.

Does not correspond at all	Corresponds a little	Corresponds moderately	Corresponds a lot	Corresponds exactly		
1	2	3	4	5	6	7

Why do you seek your goal?

For the excitement I feel when I am really involved in the activity

Because it's part of the way in which I've chosen to live my life

Because it is a good way to learn lots of things which could be useful to me in other areas of my life

Because it allows me to be well regarded by people that I know

I don't know anymore; I have the impression of being incapable of succeeding in this goal.

Because I feel a lot of personal satisfaction while mastering certain difficult techniques

Because it is absolutely necessary to do this goal if one wants to be well-perceived

Because it is one of the best ways, I have chosen to develop other aspects of my life.

Because it is an extension of me

Because I must do it to feel good about myself

For the prestige of doing it

I don't know if I want to continue to invest my time and effort as much in my goal anymore.

Because participation in this goal is consistent with my deepest principles

For the satisfaction I experience while I am perfecting my abilities

Because it is one of the best ways to maintain good relationships with my friends

Because I would feel bad if I was not taking time to do it

It is not clear to me anymore; I don't really think my place is in this goal.

For the pleasure of discovering new performance strategies

For the material and/or social benefits of doing it

Because working hard will improve my performance

Because participation in this goal is an integral part of my life

I don't seem to be enjoying this goal as much as I previously did.

Because I must do this goal regularly.

To show others how good I am at this goal.

Key Amotivation 5, 12, 17, 22

External Regulation 4, 11, 19, 24

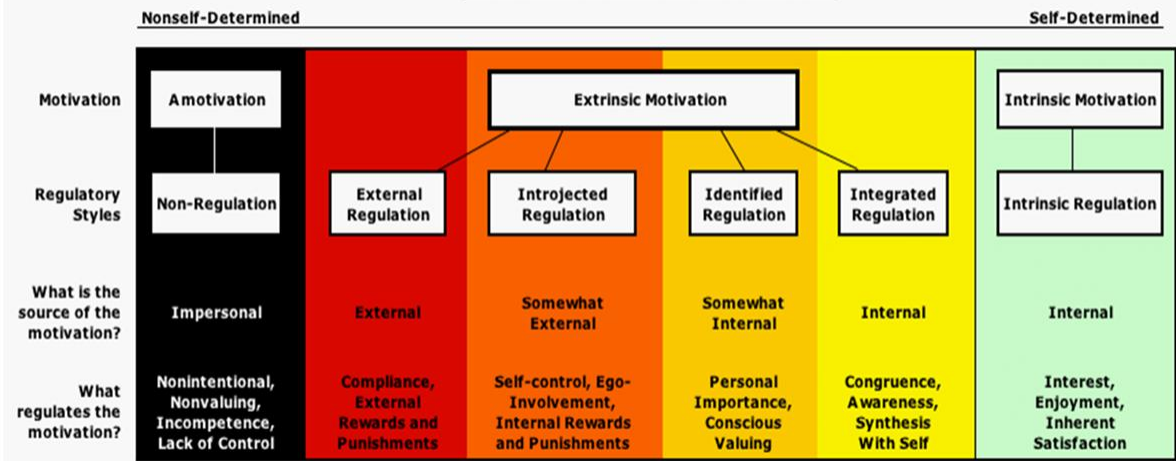
Introjected Regulation 7, 10, 16, 23

Identified Regulation 3, 8, 15, 20

Integrated Regulation 2, 9, 13, 21

Intrinsic Motivation 1, 6, 14, 18

The Self-Determination Continuum



(Based on Ryan, R.M. & Deci, E.L. (2000). *Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being*. *American Psychologist*. 55(1), 68-78.)

1.2 Self-Reflection and Insight Scale

Self-reflection and Insight Scale

(Factors, reverse scoring and scoring instructions shown)

Please read the following questions and circle the response that indicates the degree to which you agree or disagree with each of the statements. Try to be accurate, but work quite quickly. Do not spend too much time on any question

THERE ARE NO “WRONG” OR “RIGHT” ANSWERS – ONLY YOUR OWN PERSONAL PERSPECTIVE

BE SURE TO ANSWER EVERY QUESTION

ONLY CIRCLE ONE ANSWER FOR EACH QUESTION

1. I don't often think about my thoughts (R)	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
2. I am not really interested in analyzing my behaviour (R)	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
3. I am usually aware of my thoughts	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
4. I'm often confused about the way that I really feel about things (R)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
5. It is important for me to evaluate the things that I do	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
6. I usually have a very clear idea about why I've behaved in a certain way (I)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
7. I am very interested in examining what I think about	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
8. I rarely spend time in self-reflection (R)	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
9. I'm often aware that I'm having a feeling, but I often don't quite know what it is (R)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
10. I frequently examine my feelings	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
11. My behaviour often puzzles me (R)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
12. It is important to me to try to understand what my feelings mean	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
13. I don't really think about why I behave in the way that I do (R)	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
14. Thinking about my thoughts makes me more confused (R)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
15. I have a definite need to understand the way that my mind works	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
16. I frequently take time to reflect on my thoughts	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
17. Often I find it difficult to make sense of the way I feel about things (R)	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
18. It is important to me to be able to understand how my thoughts arise	(N)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
19. I often think about the way I feel about things	(E)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6
20. I usually know why I feel the way I do	(I)	Disagree Strongly 1	Disagree 2	Disagree Slightly 3	Agree Slightly 4	Agree 5	Agree Strongly 6

E = Engagement in self-reflection: N = Need for self-reflection: I = Insight: R = Reverse scored

Scoring Instructions

The scoring process is very simple. Summed scores are used. There is no scaling or scale transformation required other than basic reverse scoring for four items.

Step 1.

Reverse score those items marked (R).

An original score of “1” would become “6”; “2” would become “5”; “3” becomes “4” and visa versa.

Step 2.

Sum the scores for each subscale

Engagement in Self-reflection Sub-scale – Items: 1 (R) , 8 (R), 10, 13 (R), 16, 19

N = Need for Self-reflection Sub-scale – Items: 2 (R), 5, 7, 12, 15, 18

I = Insight Sub-scale – Items: 3, 4 (R) , 6, 9 (R), 11 (R), 14 (R), 17 (R), 20

1.3 Goal Setting Form

Please specify three goals that you are trying to attain and would like to work on during your coaching experience and answer the below questions pertaining each goal,

Rate your attainment success in the past 3 months.

Rate how difficult you feel this goal is to you.

Goal 1:					
Attainment	0% Successful (1)	25% Successful (2)	50% Successful (3)	75% Successful (4)	100% Successful (5)
Difficulty	Very Easy (1)	Easy (2)	Neutral (3)	Difficult (4)	Very Difficult (5)
Goal 2:					
Attainment	0% Successful (1)	25% Successful (2)	50% Successful (3)	75% Successful (4)	100% Successful (5)
Difficulty	Very Easy (1)	Easy (2)	Neutral (3)	Difficult (4)	Very Difficult (5)
Goal 3:					
Attainment	0% Successful (1)	25% Successful (2)	50% Successful (3)	75% Successful (4)	100% Successful (5)
Difficulty	Very Easy (1)	Easy (2)	Neutral (3)	Difficult (4)	Very Difficult (5)

1.4 ABC Form

1.4 ABC Form

1.4 ABC Form

A
Describe what was happening before the behaviour occurred:

Antecedents can be external (e.g. events, other people's behaviour) or internal (e.g. thoughts, memories, body sensations).

B
Describe the problematic behaviour:

The behaviour could be something you do that is observable by others, or it could be something you do in your mind, such as worry or self-criticize.

C
Describe what happened after the behaviour:

Does the behaviour (appear to) meet a need?
Describe short-term and long-term effects.



1.5 Human Factor Lens

As coaches, we can use this lens to systematically reflect upon the four key questions (and their respective levels) that underlie the four human factor lenses (see Figure 1 below) both introspectively and within a supervisory relationship,

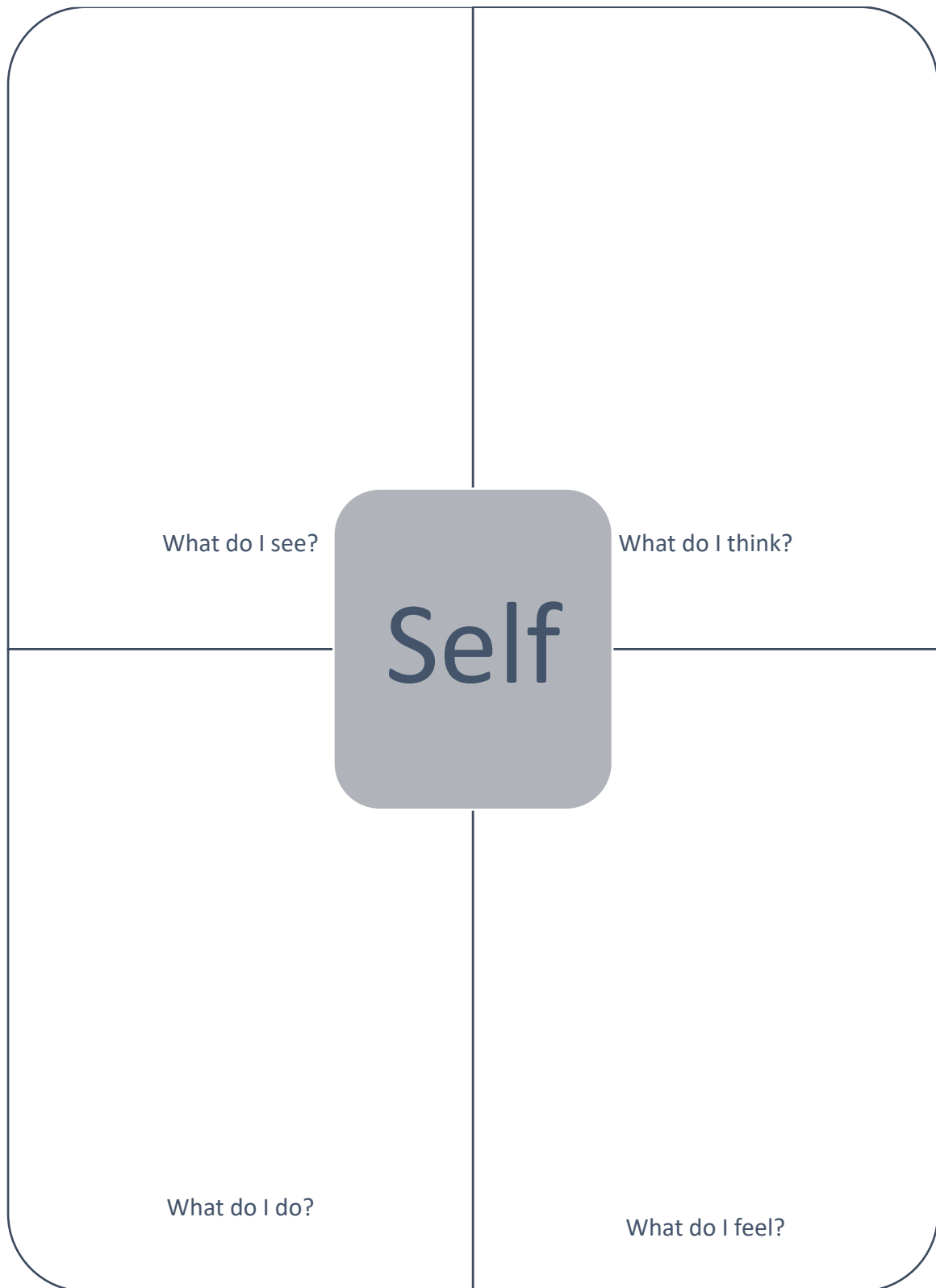
Firstly, by reflecting on our cognition, or thinking, we surface and explore the myriads of cognitive biases common to all humans.

Secondly, by reflecting on our feelings we begin to develop a deeper insight and awareness of the powerful impact that emotions have on the other three human factors.

Thirdly, these very responses and behaviours in the context of emotional stimuli within coaching relationships, and their impact on both our immediate relationships and our environment, are a rich source of data for discerning and assessing our internal predispositions.

Finally, as the practice of coaching psychology compels us to examine our perception of other people, situations, and environments around us.

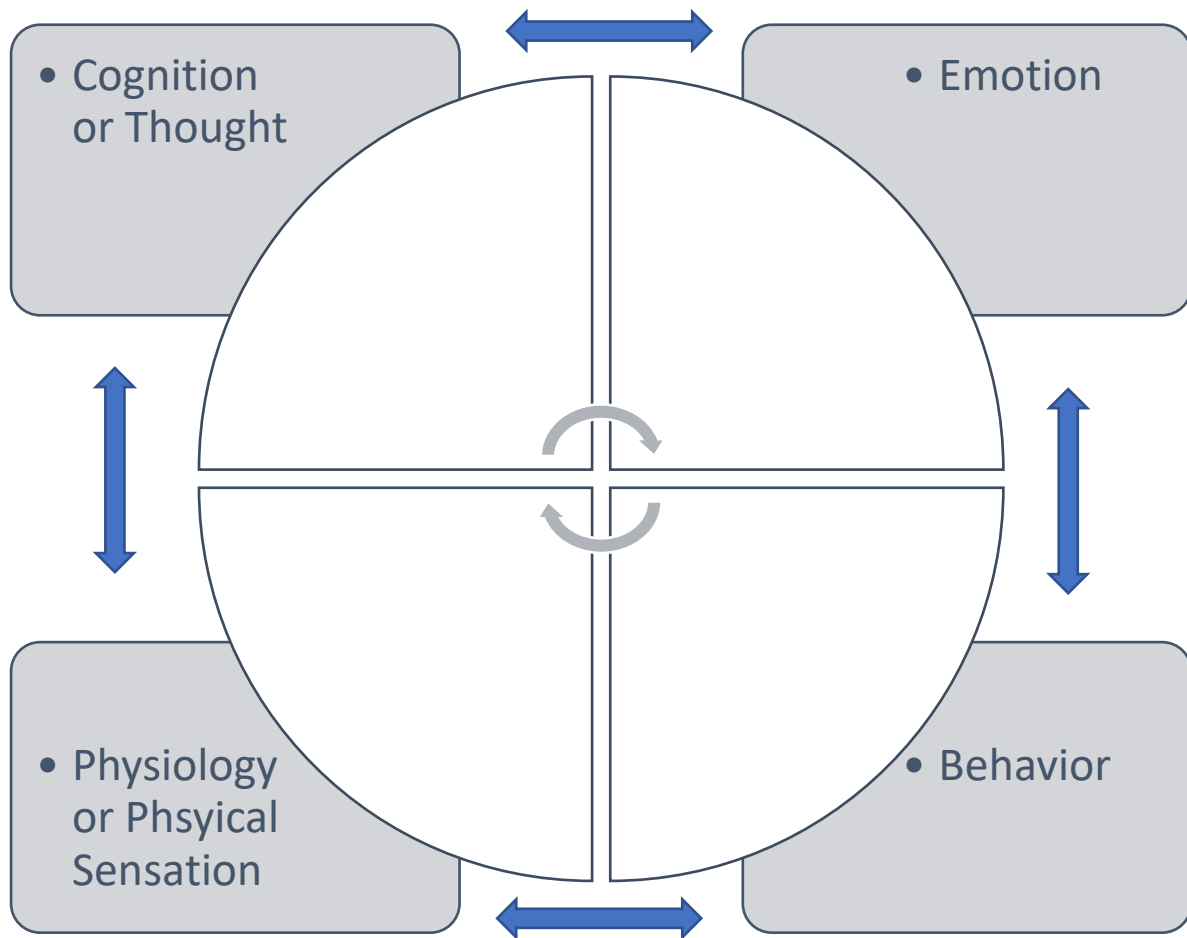
1.5 Human Factor Lens



2.1 SPACE/ Hot Cross Bun Model

Situation or Trigger:

Situation or Trigger:



2.2 CBC acquired Skills.

Table 2. Examples of Skills Included in the Cognitive Behavioral Coaching Program

SKILLS	DEFINITION
Values	Identifying qualities of ongoing action that bring meaning and vitality to one's life.
Mindful awareness	Turning attention to the present in a deliberate nonjudgmental way to observe the ongoing stream of thoughts and feelings as they arise.
Cognitive reappraisal	Identifying ineffective patterns of thinking (i.e., cognitive distortions such as catastrophizing and "should statements"), examining the evidence to support them, and generating more fact-based responses.
Cognitive defusion	Noticing thinking as it occurs and undermining the impact of thoughts to organize behavior when doing so is not useful.
Acceptance	Adopting a willing and receptive stance toward thoughts and feelings, as well as the circumstances that give rise to them. Foregoing unnecessary or ineffective attempts at suppression and control of internal experience.
Opposite action	Acting in opposition to an urge associated with an emotion (e.g., the desire to withdraw associated with sadness) to reduce the intensity of the emotion and/or choose behavior that is more effective for one's goals.
Distress tolerance	Strategically distracting oneself from intense emotions when the situations that evoke them are not immediately changeable.
Effective communication	Expressing oneself in ways that are effective for one's goals in relationships.

3.1 Thought Record Form

Find patterns through using value words, internally verbalise and document recent events, document critical reflective behaviour, and write about your feelings and connected experiences

Thought Record

Situation	Thoughts	Emotions	Behaviors	Alternate Thought

3.2 Performance Enhancing Form

Appendix 1: Performance-Enhancing Form

Target problem (A)	Performance-interfering thinking (PIT) (B)	Emotional/behavioural reaction (C)	Performance-enhancing thinking (PET) (D)	Effective and new approach to problem (E)

Appendix 2: Enhancing performance

State problem: Goal:	
Performance-interfering thinking (PIT)	Performance-enhancing thinking (PET)

Appendix 4: Stress Management Form

Target problem (A)	Stress-inducing thinking (SIT) (B)	Emotional/behavioural reaction (C)	Stress-alleviating thinking (SAT) (D)	Effective and new approach to problem (E)

© Centre for Stress Management, 2007.

3.3 Thinking Error

Table 5.1 Thinking errors and skills

Tackle common thinking errors with effective thinking skills

Errors	Skills
All or nothing thinking (e.g. I'll never get it right)	See the shades of grey
Labelling (e.g. globally rating ourselves a failure or incompetent)	Avoid labelling oneself or others; rate the behaviour not the person
Focusing on the negative (e.g. I've made a number of mistakes)	Befriend yourself; be supportive!
Discounting the positive (e.g. I was lucky when I passed the exam)	Focus on the positive
Under-playing or discounting strengths	Write a list of personal strengths
Mind-reading what others are thinking (e.g. they think I'm incompetent)	Seek evidence; avoid assumptions about other people's opinions or the future
Predicting the worst-case scenario (e.g. I'm going to screw up)	Keep things in perspective
Making mountains out of molehills	De-awfulise; keep things in perspective
Unfairly blaming oneself or others	Avoid the blame game; broaden the picture
Making unrealistic demands of oneself or others (e.g. I must perform well)	Avoid 'shoulds' and 'musts'; consider what is good enough
Thinking 'I can't stand it'; avoiding or delaying starting the task	Remind self that 'I can stand it'; avoid procrastinating (the longer we put it off, the worse it is)
Phoneyism or imposter syndrome (e.g. 'even if I perform well, one day my colleagues may find out I'm incompetent, a phoney')	Self-acceptance training

3.4 MINDFULNESS BASED COGNITIVE BEHAVIOURAL COACHING

Box 3.2 Daily mindfulness-based exercises

Take five minutes in the morning to be quiet and meditate, listen to the sounds of nature, gaze out of the window, take a quiet walk, drink a cup of tea, and really taste it. When you sit down in your car, become aware of the quality of your breathing and how your body feels. While you are driving, notice any tension in your body. Are your hands gripping the wheel? Is your stomach tight? Do you feel you have to be tense to drive effectively?

When you stop at a red light, or are stuck in traffic, bring awareness to your breathing or the sky, or the sights around you.

While sitting at your desk, bring attention on a regular basis to your bodily sensations and you're breathing. Some people use the top of the hour as a time to check on their breathing, making sure it is slow and comfortable, taking a few minutes to 'Just be.' Whilst there are a number of longer meditative exercises, such as the body scan (where an individual takes time to focus slowly on each part of his or her body for approximately 45 minutes), benefits can accrue from much shorter exercises (Kabat-Zinn, 1994).

Working with the concepts of breathing, bringing attention to sounds and thoughts and engaging in daily activities in a truly 'mindful' manner (Bhikkhu, 1997). Other skills that are taught include:

Walking meditation and mindful movement (Vriezen and Hanh, 2008).

Recognising automatic thoughts and their effects (Beck, 1976).

Acceptance of and allowing thoughts to be as they present themselves, as a way of learning to respond to life's challenges rather than merely reacting automatically (Hayes, Follette and Linehan, 2004).

Basic teaching on the physiology of stress and providing neuropsychological insights (Siegel, 2007).

Ways of learning how to manage aspects of an individual's daily life, such as self-care, using time management, exercise, diet, relaxation, etc. (Chödrön, 1994).

The insights and challenges that the client experiences when participating in the mindfulness part of the programme become the focus for discussion between the coach and the coachee. It is here that the more traditional elements of CBC come into play. For example, if a coachee finds it hard to concentrate on being focused on the present, due to constant thoughts about what others might think or of work needing to be done, the coach encourages the client to explore the meaning and impact of this intrusive thinking.

The Programme will be extremely effective provided that participants are prepared to engage in regular practice in order to reach the desired outcome. The Programme recommends that clients undertake a daily 40-minute meditative practice, five to six times a week, and they are encouraged to make a pro-active investment in individual well-being.

3.5 Attention Training

Find recording in → <https://www.youtube.com/@AfternoonBreak>

3.6 Relaxation Techniques →

<https://www.nhsinform.scot/healthy-living/preventing-falls/fear-and-anxiety-about-falling/relaxation-techniques-to-help-prevent-falls>

3.7 Miracle Question

The basic format of the miracle question is.

“Now I want to ask you a strange question. Suppose that one night while you were asleep, there was a miracle, and this problem was solved. However, because you were sleeping you don’t know that the miracle has happened. So, when you wake up, what will be different that will tell you that a miracle has happened and that the problem is solved?

(Pichot & Dolan, 2007; p77).

The following questions offer valuable follow-ups and progress the dialogue. They help the coachee create and explore new possibilities (modified from Yu, 2019, p. 1931):

How will you know the miracle has happened?

What will others (parents, partner, children, work colleagues, etc.) notice about you that makes them aware things are different or better?

What would their reaction be? What would they do?

What would you do next?

What would we see (feelings, thoughts, and behaviour) if we compared a before and after picture?

Have you ever seen elements of this happen before?

3.8 Functional Analysis Form

Behaviour	Intended Consequence	Unintended Consequence	Alternative to Try Out

4.1 Behavioural Experiment Design Form

Behavioural experiments are used in several ways, such as:

To test the validity of a thought or belief,

To test the validity of an alternative thought or belief or

To compare and contrast the two.

To gain information on what happens following a change in behaviour.

To discover the effect (increasing or decreasing) mental or behavioural activities have on emotional or physical response. A particularly important experiment is to help discover that one's anxiety will subside of its own accord if they tolerate it rather than seek to avoid or control it.

<p>Prediction</p> <p>What is your prediction?</p> <p>What do you expect will happen?</p> <p>How would you know if it came true?</p>	<p>Rate how strongly you believe this will happen (0-100%)</p>
<p>Experiment</p> <p>What experiment could test this prediction? (where & when)</p> <p>What safety behaviours will need to be dropped?</p> <p>How would you know your prediction had come true?</p>	
<p>Outcome</p> <p>What happened?</p> <p>Was your prediction accurate?</p>	
<p>Learning</p> <p>What did you learn?</p> <p>How likely is it that your predictions will happen in the future?</p>	<p>Rate how strongly you agree with your original prediction now (0-100%)</p>

4.2 PRACTICE MODEL

APPENDIX 1: PRACTICE STEPS TO SOLUTIONS FORM (© Stephen Palmer, 2008)

STEP 1: PROBLEM IDENTIFICATION

What is the problem, issue or concern? What would you like to change? Are there exceptions when it is not a problem? How will we know if the situation has improved?

STEP 2: REALISTIC RELEVANT GOALS DEVELOPED

What do you want to achieve? Select specific, measurable, achievable, realistic, timebound goal(s)

STEP 3: ALTERNATIVE SOLUTIONS GENERATED

What are your options? Write down possible ways of reaching your goals.

STEP 4: CONSIDER OF THE CONSEQUENCES

What could happen? How useful is each possible solution? Weigh up the pros and cons. Use a usefulness rating scale: 1-10

STEP 5: TARGET MOST FEASIBLE SOLUTION(S)

Choose the most feasible solution(s).

STEP 6: IMPLEMENTATION OF

CHOSEN SOLUTION(S)

Break down the solution into manageable steps. Now go and do it.

STEP 7: EVALUATION

How successful was it? Use a rating 'success' scale 1 to 10. Focus on your achievement. What can be learnt? Can we finish coaching now or do you want to address or discuss another issue or concern? Review and revise plan as necessary.

4.3 Goal Attainment Scaling (GAS)

GAS is a method that can be used as a means of measuring outcome data from different contexts set out on a 5-point scale of -2 to +2.

Level of Expected OUTCOME 3 months after the course	Rating	Behavioral Statement of EXPECTED OUTCOMES: - GOAL 1	Behavioral Statement of EXPECTED OUTCOMES: - GOAL 2
MUCH MORE Than EXPECTED	+2		
MORE than EXPECTED	+1		
EXPECTED Outcome	0		
LESS than EXPECTED	-1		
MUCH LESS Than EXPECTED	-2		

Coachee - Session Debriefing Sheet

This sheet is designed to help coaches gather your feedback about the session to assist them to customise a coaching experience that cater for your needs. Please give feedback by answering the questions below.

Session Date: _____

Coach Name: _____

Session main purpose:

Questions 1: What were the issues discussed during this session?

Question 2: How do you feel about this session, overall?

Question 3: What is the best outcome of this session?

Question 4: How can we improve future sessions?

Do you have any other comments/ inquiries/ suggestions?

Thank you for your participation.

Appendix 6: Realist Interview Guidelines

Interview Guidelines - Coachee

Question / Question structure	Rationale
<p>Can you tell me how you became aware of and involved in the coaching programme?</p>	<p>Realist interviewing assumes that people know different things according to their roles. Use the answers to this question to tailor future questions to what it is that the respondent can be expected to know about.</p>
<p>What do you consider the outcomes of the coaching programme [or an element of the programme] to have been for yourself?</p> <p>For programme participants, this question can be asked “for yourself,” “for your team,” and so on.</p>	<p>Realist evaluation assumes that programmes have different outcomes for different groups. The question should be asked repeatedly for different groups (e.g., children, parents, workers, the community as a whole) until the range of outcomes has been identified. If expected outcomes are not identified, it is OK to prompt for those outcomes. If unexpected outcomes are identified, prompt for greater description. Outcomes should be verified using other data types and sources where possible</p>
<p>Can you give an example of [outcome named in previous question]?</p>	<p>Prompt for evidence of the nature and extent of the outcome. Also serves as a check on socially desirable responding.</p>
<p>Do you think that the outcomes have been the same for all coachees? In what ways have they been different?</p>	<p>Realist evaluation seeks to identify “in what respects, for whom” and “to what extent, for whom” programmes achieve outcomes. The question can be asked repeatedly for different groups – but to manage interview length, would usually focus on the stage of the implementation chain that is the focus of the evaluation</p>
<p>We are really interested if the coaching programme [or an element of programme] causes its outcomes. How do you think the programme has caused, or helped to cause [outcome identified by respondent]?</p>	<p>Initial question leading into exploration of mechanisms. Many participants will identify programme activities (e.g., training) or resources (e.g., funding). It is ESSENTIAL to probe further – e.g. – So, what did the training provide that was new? Was it mainly about new skills, do you think, or new attitudes? Or: So, what exactly was the outcome of the training? How did that help cause (the later outcome)?</p>
<p>Do you think the coaching programme [or an element of programme] changed the way you think or feel about goal attainment or well-being in any way? In what ways? Can you provide examples?</p>	<p>Realist evaluation uses the construct of ‘reasoning and resources’ to explain how programmes cause outcome. This is an explicit probe for ‘reasoning’ in relation to a specific aspect of programme theory. E.G. – Programme may expect stakeholders to change their understanding of their roles or responsibilities and adapt their behaviour accordingly. So, the question might be “Has programme affected how teachers think about their role in any way?”</p>

<p>There are lots of ideas about when coaching programme [or an element of programme] works, and we think it probably works differently in different places or for different people. One of those ideas is [brief description of main mechanism]. Has it worked at all like that here/for you? Can you give an example?</p>	<p>The subject of a realist interview is the programme theory. The aim is to get the respondent to refine the programme theory for the context about which they know. This question should be asked about at least two different explanations of how the programme might work – as a check on socially desirable responding, and to elicit whether the programme works differently for different people.</p>
<p>We've seen that this coaching programme work differently in different places. What is it about this place that makes it work or not [so well, less well]?</p>	<p>Realist evaluation assumes context does affect outcomes (by affecting which mechanisms fire). Probe for aspects of culture, local resources/lack of them, local relationships, relationship between organisation and participants and so on.</p>
<p>If you could change something about this programme to make it work more effectively here, what would you change and why?</p>	<p>Often elicits understandings of why programme has not worked as effectively as it might (i.e., mechanisms not firing, aspects of context) as well as strategies for improvement.</p>
<p>What else do you think we need to know, to really understand how this programme has worked here?</p>	<p>Open probe that enables participants to comment on anything not covered by the interview. Structure of the question keeps the focus on 'how the programme works' and 'in this context.'</p>

Question / Question structure	Rationale
Can you tell me what your involvement in or relation with the CBC coaching programme has been?	Realist interviewing assumes that people know different things according to their roles. Use the answers to this question to tailor future questions to what it is that the respondent can be expected to know about.
What do you consider the outcomes of the coaching programme [or an element of the programme] to have been for coachees?	Realist evaluation assumes that programmes have different outcomes for different groups. The question should be asked repeatedly for different groups (e.g., children, parents, workers, the community as a whole) until the range of outcomes has been identified. If expected outcomes are not identified, it is OK to prompt for those outcomes. If unexpected outcomes are identified, prompt for greater description. Outcomes should be verified using other data types and sources where possible
Can you give an example of [outcome named in previous question]?	Prompt for evidence of the nature and extent of the outcome. Also serves as a check on socially desirable responding.
Do you think that the outcomes have been the same for all coachees? In what ways have they been different?	Realist evaluation seeks to identify “in what respects, for whom” and “to what extent, for whom” programmes achieve outcomes. The question can be asked repeatedly for different groups – but to manage interview length, would usually focus on the stage of the implementation chain that is the focus of the evaluation
We are really interested if the coaching programme [or an element of programme] causes its outcomes. How do you think the programme has caused, or helped to cause [outcome identified by respondent]?	Initial question leading into exploration of mechanisms. Many participants will identify programme activities (e.g., training) or resources (e.g., funding). It is ESSENTIAL to probe further – e.g. – So, what did the training provide that was new? Was it mainly about new skills, do you think, or new attitudes? Or: So, what exactly was the outcome of the training? How did that help cause (the later outcome)?
Do you think the coaching programme [or an element of programme] changed the way coachees thinks or feels about goal attainment or well-being in any way? In what ways? Can you provide examples?	Realist evaluation uses the construct of ‘reasoning and resources’ to explain how programmes cause outcome. This is an explicit probe for ‘reasoning’ in relation to a specific aspect of programme theory. E.G. – Programme may expect stakeholders to change their understanding of their roles or responsibilities and adapt their behaviour accordingly. So, the question might be “Has programme affected how teachers think about their role in any way?”
What is it about the way the coaching programme was implemented that made a difference to how it worked? Or ‘What is it about the way [Organisation] works that makes a difference to how it works?’	Realist interviewing sees specific aspects of implementation as aspects of context (i.e., factors that affect whether and how mechanisms fire). The aim is to understand how implementation has affected mechanisms and therefore outcomes. Probe for both positive and negative aspects of implementation.

<p>We've seen that this coaching programme work differently in different places. What is it about this place that makes it work (or not) [so well, less well]?</p>	<p>Realist evaluation assumes context does affect outcomes (by affecting which mechanisms fire). Probe for aspects of culture, local resources/lack of them, local relationships, relationship between organisation and participants and so on.</p>
<p>If you could change something about this programme to make it work more effectively here, what would you change and why?</p>	<p>Often elicits understandings of why programme has not worked as effectively as it might (i.e., mechanisms not firing, aspects of context) as well as strategies for improvement.</p>
<p>What else do you think we need to know, to really understand how this programme has worked here?</p>	<p>Open probe that enables participants to comment on anything not covered by the interview. Structure of the question keeps the focus on 'how the programme works' and 'in this context'</p>

Question / Question structure	Rationale
Can you tell me what your involvement in or relation with the CBC coaching programme has been?	Realist interviewing assumes that people know different things according to their roles. Use the answers to this question to tailor future questions to what it is that the respondent can be expected to know about.
What do you consider the outcomes of the coaching programme [or an element of the programme] to have been for [employees/organisation]? For programme participants, this question can be asked “for yourself,” “for your team,” and so on.	Realist evaluation assumes that programmes have different outcomes for different groups. The question should be asked repeatedly for different groups (e.g., children, parents, workers, the community as a whole) until the range of outcomes has been identified. If expected outcomes are not identified, it is OK to prompt for those outcomes. If unexpected outcomes are identified, prompt for greater description. Outcomes should be verified using other data types and sources where possible
Can you give an example of [outcome named in previous question]?	Prompt for evidence of the nature and extent of the outcome. Also serves as a check on socially desirable responding.
Do you think that the outcomes have been the same for all coachees? In what ways have they been different?	Realist evaluation seeks to identify “in what respects, for whom” and “to what extent, for whom” programmes achieve outcomes. The question can be asked repeatedly for different groups – but to manage interview length, would usually focus on the stage of the implementation chain that is the focus of the evaluation
Have the outcomes been the same for [those who did not participate in coaching]. In what ways have they been different?	The focus of a realist interview is the programme theory. The question is seeking more specific information about “for whom” the programme has and has not been effective (in what respects, to what extent), but probing specifically in relation to subgroups that are identified in the programme theory.
We are really interested if the coaching programme [or an element of programme] causes its outcomes. How do you think the programme has caused, or helped to cause [outcome identified by respondent]?	Initial question leading into exploration of mechanisms. Many participants will identify programme activities (e.g., training) or resources (e.g., funding). It is ESSENTIAL to probe further – e.g. – So, what did the training provide that was new? Was it mainly about new skills, do you think, or new attitudes? Or: So, what exactly was the outcome of the training? How did that help cause (the later outcome)?
There are lots of ideas about when coaching programme [or an element of programme] works, and we think it probably works differently in different places or for different people. One of those ideas is [brief description of main mechanism]. Has it worked at all like that here/for you? Can you give an example?	The subject of a realist interview is the programme theory. The aim is to get the respondent to refine the programme theory for the context about which they know. This question should be asked about at least two different explanations of how the programme might work – as a check on socially desirable responding, and to elicit whether the programme works differently for different people.

<p>What is it about the way the coaching programme was implemented that made a difference to how it worked? Or 'What is it about the way [Organisation] works that makes a difference to how it works?</p>	<p>Realist interviewing sees specific aspects of implementation as aspects of context (i.e., factors that affect whether and how mechanisms fire). The aim is to understand how implementation has affected mechanisms and therefore outcomes. Probe for both positive and negative aspects of implementation.</p>
<p>We've seen that this coaching programme work differently in different places. What is it about this place that makes it work (or not) [so well, less well]?</p>	<p>Realist evaluation assumes context does affect outcomes (by affecting which mechanisms fire). Probe for aspects of culture, local resources/lack of them, local relationships, relationship between organisation and participants and so on.</p>
<p>If you could change something about this programme to make it work more effectively here, what would you change and why?</p>	<p>Often elicits understandings of why programme has not worked as effectively as it might (i.e., mechanisms not firing, aspects of context) as well as strategies for improvement.</p>
<p>What else do you think we need to know, to really understand how this programme has worked here?</p>	<p>Open probe that enables participants to comment on anything not covered by the interview. Structure of the question keeps the focus on 'how the programme works' and 'in this context'</p>

Appendix 7: CMO Interview Tracker

PS	M	MR	O	C
PS1: Coaching conversations for explorations	M1: Enhance Self-reflection and Metacognitive Skills	MR1: Self-awareness of internal dialog and deep generative beliefs	O1: Identify Psychological Blocks (1. NATs 2. thinking errors 3. troublesome emotions 4. limiting beliefs 5. counter productive behaviour)	C1: Coachee Attributes: Introspection
PS2: Self Reflection Exercises	M2: Challenge NATs/thinking errors/limiting beliefs	MR2: Replace NATs/thinking errors/limiting beliefs	O2: Better Decision Making	C2: Coachee Attributes: Readiness & motivation to change
PS3: Coaching Conversations for cognitive reorientation	M3: Exposure and Reality testing	MR3: Acquire a +ve mindset through engaging in +ve thinking	O3: Positive emotional change	C3: Organisational Factors: Communication
PS4: Behavioural Experiments	M4: Goal directed action planning	MR4: Increase Pathway and Agency Thinking	O4: Increased Hope	C4: Organisational Factors: Awareness and training sessions
PS5: SMART goal setting	M5: Improved self-regulation (=MR7)	MR5: Identify Performance Blocks (=M7)	O5: Stress Reduction (=MR10)	C5: Coach qualifications: Ability to assess and conceptualise coaching cases
PS6: Using Assignment Records	M6: Defined acceptable levels of performance	MR6: Better use of cognitive resources (=O7)	O6: Better Goal Striving	C6: Coach qualifications: Ability to build rapport
PS7: Reflection sessions to monitor progress	M7: Identify performance block (=MR5)	MR7: Enhance self-regulation (=M5)	O7: Better use of cognitive resources (=MR6)	C7: Coaching Relationship: Building coaching alliance
PS8: Give feedback/maintain feedback loops	M8: Develop maintenance strategies	MR8: Feeling Supported	O8: Better Goal attainment	C8: Coaching Relationship: Building Transparency and Trust
PS9: Progress Evaluation	M9: Proactive Solution Seeking Approach	MR9: Enhance Problem Solving Skills	O9: Construct new productive behaviours	
Other: Keeping a thought record	M10: Continuity	MR10: Stress Reduction (=O5)	O10: Relapse Prevention	
		Other: Better control of attention	Other: Enhanced Wellbeing	
		Other: Reduced emotional reactivity	Other: Enhanced Performance	

Appendix 8: Ethics Application

Research Ethics Application Form v1.7.3



Coaching Into Well-being: Realist evaluation of cognitive behavioral coaching program in enhancing goal attainment and well-being in the workplace -

Information Regarding this Research Project

Are you conducting a research project?

(for more information on research projects please see our [ethics pages](#))

Yes No

Does your research only involve animals?

Yes No

Are you undertaking this research as/are you filling this form out as:

- Academic/Research Staff
- Non Academic Staff
- Staff Undertaking a Programme of Study
- PhD or DClinPsy student
- Undergraduate, Masters, Master by Research, MPhil or other taught postgraduate programme

Which Faculty are you in?

Faculty of Health and Medicine

Which department are you in?

Health Research

Will your project require NHS REC approval? (If you are not sure please read the guidance in the information button)

- Yes No

Do you need Health Research Authority (HRA) approval? (Please read the guidance in the information button)

- Yes No

Have you already obtained, or will you be applying for ethical approval, from another institution outside of Lancaster University? (For example, an external institution such as: another University's Research Ethics Committee, the NHS or an institution abroad (eg an IRB in the USA)? Please select one of the following:

- No, I do not need ethical approval from an external institution.
 Yes, I have already received ethical approval from an external institution.
 Yes, I will be applying for ethical approval from an external institution after I have received confirmation of ethical approval from my Faculty Research Ethics Committee (FREC) at Lancaster University, if the FREC grants approval.

Is this an amendment to a project previously approved by Lancaster University?

- Yes No

Will your research involve any of the following? (Multiple selections are possible, please see i icon for details)

- Human Participants
 Data relating to humans (Secondary/Pre-existing data only)
 Data collection from online sources such as social media platforms, discussion forums, online chat-rooms
 Human Tissue
 None of the above

Project Information

Please confirm/amend the title of this project.

Coaching Into Well-being: Realist evaluation of cognitive behavioral coaching program in enhancing goal attainment and well-being in the workplace

Estimated Project Start Date

03/10/2022

Estimated End Date

31/03/2023

Is this a funded Project?

Yes

No

Research Site(s) Information

Will you be recruiting participants from research sites outside of Lancaster University? (E.g. Schools, workplaces, etc; please read the guidance in the information button for more information)

Yes

No

Please provide the number, type and location of external research sites that you are using (please see help text for details).

A Consultancy Organisation in Egypt.

Applicant Details

Are you the named Principal Investigator at Lancaster University?

Yes

No

Please check your contact details are correct. You can update these fields via the personal details section located in the top right of the screen. Click on your name and email address in the top right to access "Personal details". For more details on how to do this, please read the guidance in the information button.

First Name

Ola

Surname

Abdelfatah

Department

Division of Health Research

Faculty

Organisational Health and Well-Being

Email

o.abdelfatah@lancaster.ac.uk

Principal Investigator

You have stated that you are the Principal Investigator for this project.

First Name

Ola

Surname

Abdelfatah

Department

Division of Health Research

Email

o.abdelfatah@lancaster.ac.uk

Supervisor Details

Search for your supervisor's name. *If you cannot find your supervisor in the system please contact rso-systems@lancaster.ac.uk to have them added.*

First Name

Sabir

Surname

Giga

Department

Health Research

Faculty

Faculty of Health and Medicine

Email

s.giga@lancaster.ac.uk

Do you need to add a second supervisor to sign off on this project?

Yes

No

Search for your secondary supervisor's name. *If you cannot find your supervisor in the system please contact rso-systems@lancaster.ac.uk to have them added.*

First Name

Jane

Surname

Simpson

Department

Health Research

Faculty

Faculty of Health and Medicine

Email

j.simpson2@lancaster.ac.uk

Additional Team Members

Other than those already added, please select which type of team members will be working on this project:

- I am not working with any other team members.
- Staff
- Student
- External

Details about the participants

As you are conducting research with Human Participants/Tissue you will need to answer the following questions before your application can be reviewed.

If you have any queries about this please contact your [Ethics Officer](#) before proceeding.

What's the minimum number of participants needed for this project?

10

What's the maximum number of expected participants?

20

Do you intend to recruit participants from online sources such as social media platforms, discussion forums, or online chat rooms?

- Yes No

Will you get written consent and give a participant information sheet with a written description of your research to all potential participants?

- Yes No I don't know

Will any participants be asked to take part in the study without their consent or knowledge at the time or will deception of any sort be involved?

- Yes No I don't know

Is your research with any vulnerable groups?

(Vulnerable group as defined by Lancaster University Guidelines)

- Yes No I don't know

Is your research with any adults (aged 18 or older)?

- Yes No

Is your research data collected with completely anonymous adult (aged 18 or older) participants, with no contact details or other uniquely identifying information (e.g. date of birth) being recorded?

- Yes No

Is your research with adult participants (aged 18 years, or older) in private interactions (for example, one to one interviews, online questionnaires)?

- Yes No

Is your research with any young people (under 18 years old)?

- Yes No I don't know

Does your research involve discussion of personally sensitive subjects which the participant might not be willing to otherwise talk about in public (e.g. medical conditions)?

- Yes No I don't know

Could the study induce psychological stress or anxiety, or produce humiliation or cause harm or negative consequences beyond the risks encountered in a participant's usual, everyday life?

- Yes No I don't know

Is there a risk that the nature of the research topic might lead to disclosures from the participant concerning either:

- Their own or others involvement in illegal activities
- Other activities that represent a threat to themselves or others (e.g. sexual activity, drug use, or professional misconduct)?

Yes No I don't know

Does the study involve any of the following:

- Physically intrusive procedures including touching or attaching equipment to participants
- Administration of substances
- Ultrasound or sources of non-ionising radiation (e.g. lasers)
- Sources of ionising radiation, (e.g. X-rays)
- Collection or use of samples of Human Tissue (e.g. Saliva, skin cells, blood etc.)

Yes No I don't know

Details about Participant relationships

Do you have a current or prior relationship with potential participants? For example, teaching or assessing students or managing or influencing staff (this list is not exhaustive).

Yes No I don't know

Will you ensure that the prior relationship does not cause the participant to feel/perceive pressure to participate, and will you explain that their decision whether to participate or not will have no effect on their learning, assessment, treatment, or rights?

Yes No I don't know

If you need written permission from a senior manager in an organisation where research will take place (e.g. school, business) will you gain this in advance of undertaking your research?

Yes No I don't know N/A

Will you be using a gatekeeper to access participants?

Yes No I don't know if I will be using a gatekeeper

Will participants be subjected to any undue incentives to participate?

Yes No I don't know

Will you ensure that there is no perceived pressure to participate?

- Yes No I don't know

Participant data

Will you be using video recording or photography as part of your research or publication of results?

- Yes No

Will you be using audio recording as part of your research?

- Yes No

Will you be using audio recordings in outputs (e.g. giving a presentation in a conference, using it for teaching)?

- Yes No

Will you be using portable devices to record participants (e.g. audio, video recorders, mobile phone, etc)?

- No
- Yes, and all portable devices will be encrypted as per the Lancaster University ISS standards, in particular where they are used for recording identifiable data
- Yes, but these cannot be encrypted because they do not have encryption functionality. Therefore I confirm that any identifiable data (including audio and video recordings of participants) will be deleted from the recording device(s) as quickly as possible (e.g. when it has been transferred to a secure medium, such as a password protected and encrypted laptop or stored in OneDrive) and that the device will be stored securely in the meantime

Will you be using other portable storage devices in particular for identifiable data (e.g. laptop, USB drive, etc)? (Please read the help text)

- No
- Yes, and they will be encrypted as per the Lancaster University ISS standards in particular where they are used for recording identifiable data

Will anybody external to the research team be transcribing the research data?

- Yes No

Confirm that you will sign a confidentiality agreement and/or 3rd party data transfer contract which is compliant with GDPR.

I confirm that I will sign a confidentiality agreement and/or 3rd party data transfer contract which is compliant with GDPR.

Data Origin

Is the data you will be using in the public domain or from data repositories?

Yes No

Do you intend to use data about humans from online sources such as social media platforms, discussion forums, or online chat rooms?

Yes No

Has consent for the use/reuse of the data for research purposes been obtained?

Yes No I don't know

Will you protect confidentiality and anonymity in your (re)analysis of the data?

Yes No I don't know

Data Analysis

Do you intend to conduct a secondary analysis of existing research data?

Yes No

General Queries

Does the funder or any organisations involved in the research have a vested interest in specific research outcomes that would affect the independence of the research?

Yes No I don't know

Does any member of the research team, or their families and friends, have any links to the funder or organisations involved in the research?

- Yes No I don't know

Can the research results be freely disseminated?

- Yes No I don't know

Will you use data from potentially illicit, illegal, or unethical sources (e.g. pornography, related to terrorism, dark web, leaked information)?

- Yes No I don't know

Will you be gathering/working with any special category personal data?

- Yes No I don't know

Are there any other ethical considerations which haven't been covered?

- Yes No I don't know

REC Review Details

Based on the answers you have given so far you will need to answer some additional questions to allow reviewers to assess your application.

It is recommended that you do not proceed until you have completed **all of the previous questions**.

Please confirm that you have finished answering the previous questions and are happy to proceed.

- I confirm that I have answered all of the previous questions, and am happy to proceed with the application.

Questions for REC Review

Summarise your research protocol in lay terms (indicative maximum length 150 words).

Note: The summary of the protocol should concisely but clearly tell the Ethics Committee (in simple terms and in a way which would be understandable to a general audience) what you are broadly planning to do in your study. Your study will be reviewed by colleagues from different disciplines who will not be familiar with your specific field of research and it may also be reviewed by the lay members of the Research Ethics Committee; therefore avoid jargon and use simple terms. A helpful format may include a sentence or two about the background/ "problem" the research is addressing, why it is important, followed by a description of the basic design and target population. Think of it as a snapshot of your study.

This research aims to explore evidence based coaching interventions, namely cognitive behavioral coaching (CBC). This research's attempt to evaluate a CBC program implemented in a consultancy firm. The program is designed for enhancing goal attainment and perceptions of subjective well-being in the workplace. The research question investigated is, What's in a CBC workplace intervention that works? For whom? In what context and how?. The program will be examined through a realist evaluation methodology. Research commences via exploring coaching program documentations such as coaching agreements, coaching feedback documents and coaching session debriefing sheets to gain insights on the coaching process and participant's experience. This step is followed by conducting realist interviews, which according to Manzano (2016) is the main method to generate data about program effectiveness in realist evaluations. Realist interviewing is a theory driven interview approach where theory is used to guide the interviewing process and participants views are explored through a conversation.

State the Aims and Objectives of the project in Lay persons' language.

The research question is, What's in a Cognitive Behavioral coaching workplace intervention that works? For whom? In what context and how?
This research is an attempt to assist the firm in transforming their coaching intervention from a commercial program to an evidence based intervention. The research results will provide the consultancy firm with evidence based recommendations on how to optimize their current coaching intervention to meet the need of their employees, generate desired outcomes of enhancing goal attainment, well-being and performance and improve the return on investments of the firm's human resources development initiatives.

Participant Information

Please explain the number of participants you intend to include in your study and explain your rationale in detail (eg who will be recruited, how, where from; and expected availability of participants). If your study contains multiple parts eg interviews, focus groups, online questionnaires) please clearly explain the numbers and recruitment details for each of these cohorts (see help text).

The initial number of participants is planned to be 15. Variability in participants is crucial to gain a full picture of the program's implementation and barriers as well as investigate unintended outcomes. Thus, purposive sampling will be used to select stakeholders based on various criteria as their program implementation roles (Pawson & Tilley, 2004; Weiss, 1998). Approximately, 1-2 coaches, 10-12 coachees, 3-4 talent management policy makers and members of the management team are considered for the interview's participant's list as the main stakeholders of the coaching program.

You have selected that the research may involve personal sensitive topics that participants may not be willing to otherwise talk about. Please indicate what discomfort, inconvenience or harm could be caused to the participant and what steps you will take to mitigate or manage these situations.

No danger or major inconveniences are anticipated in the proposed project. However, giving the nature of psychology related research, the interviews might result in emotional distress by triggering upsetting memories, reflections, emotions, and doubts on choosing to participate. Efforts are done to minimize harm.

Participants are made aware that in case of distress, interviews can be stopped and resumed at their convenience. Further, contact details for counselling are handed in the PIS, for the event where other type of support is deemed more appropriate.

In reference to participant withdrawal, participants have the free will to withdraw at anytime during the intervention with no obligations to justify. In reference to data withdrawal, the proposed study follows Walshe and Brearley (2020) guidance of granting two weeks for participants to withdraw data after interview conducting. In the case when a withdrawal request is received after the data is anonymized and incorporated in the analysis, efforts will be made to locate the data and remove it, however researcher can not guarantee complete data withdrawal past the 2 weeks time limit.

You have indicated that you will collect identifying information from the participants. Please describe all the personal information that you gather for your study which might be used to identify your participants.

Name
E-mail
Age
Gender
Employment Information including Job Title and Employment status

Please describe how the data will be collected and stored.

For the proposed research, data collected is mostly qualitative interview scripts. Data will be stored on the university provided, password protected, one-Drive cloud-based platform as advocated by the university policy. Using a cloud storing area gives researcher flexibility to access and process data outside university premises, given that researcher is conducted in Egypt. Raw data of interview recordings and transcripts will be kept in audio files and encrypted Microsoft Word documents till the end of the research. Meaningful file names and file versions will be considered for each data file to ensure consistency and accuracy across data preparation and processing steps. Also, a copy of the master data file with raw data will be stored separately as a back up to the work in progress ones. Data collected will be anonymized, at the earliest point possible, in compliance with the ICO anonymisation code of practice. Upon data analysis commencement, personal data identifiers will be separated and stored independently from the anonymised data set in another encrypted file. Additionally, personal data will be deleted upon dissemination of research final report. Afterwards, decision about data will be made jointly with research control officer at Lancaster university. Other data will be held for a maximum of 10 years after project conclusion as per Lancaster university regulation, which will have data stewardship by then.

Please describe how long the data will be stored and who is responsible for the deletion of the data.

Upon dissemination, research data, excluding personal data, will be preserved in Lancaster's university data repository, using Pure, which provide access to datasets generated by university research with the appropriate license. The university data repository preserves data for a minimum of 10 years according to University's policy. Additionally, supporting data will be shared with unrestricted access to journal website upon publication.
To avoid the risk of participants being identified and confidentiality and/or anonymity breach, personal data files will be destroyed upon dissemination.

Information about the Research

Will you be sharing your data with any other organisation?

- Yes No

Confirm you will ensure a data sharing agreement is in place which is GDPR compliant.

- I confirm that I will ensure a data sharing agreement is in place which is GDPR compliant

What are your dissemination plans? E.g publishing in PhD thesis, publishing in academic journal, presenting in a conference (talk or poster).

This research proposal is put together for a PhD thesis at Lancaster University. The researcher aims to submit research for publication in peer reviewed journals. Targeted journals, specialized in the research topic, are the International Coaching Psychology Review and the international journal for evidence-based coaching and mentoring. The final research report will also be disseminated to the participants and the firm's policy makers. Finally, the researcher will target opportunities to present findings in both academic and business conferences and seminars.

Data Origin

You have indicated that the data you will be using is not in the public domain. Please explain how the records will be obtained and indicate the original purpose for which the data was collected.

The purpose of this study is to collect primary data through interviews.

General Queries

You have stated that there are other ethical considerations that have not been covered. Please explain what these other ethical considerations are, and how you would mitigate concerns regarding this research project.

As a final consideration for dual roles in coaching research, Crawshaw (2005) discusses the potential tension that may arise between the researcher investigator role and the coaching role, given that the researcher is employed as a coach by the firm. Acknowledging that the role boundaries can be complex for practitioners to be researchers, and to avoid potential bias, the coaching process in the firm's pilot study is completely separated from the research data collection process. Also, the firm approves the recruiting external certified coaches. Additionally, any conflict that might arise between an employee and the researcher can be reported, by any of the parties, to the firm's Human resources department and the researcher's supervisor to ensure fair resolution of this conflict. Finally, Complaints can be submitted to the contacts added to the participant information sheet.

Another consideration is the health and safety of those involved in research during the current global pandemic. This explains having the flexibility of collecting data, based on participant preference. This switch brings digital divide consequences. According to Lindsay, Smith, Bell, and Bellaby (2007), the two major reasons for digital absence is perceived lack of utility as well as the lack of skill to using it. However, It is also less likely for the targeted participants to lack the utility and skills, given their education and job requirements. Thus, stakeholders involved in this research are less likely to be digitally absent.

Data Storage

How long will you retain the research data?

Research data, excluding personal data, will be preserved in Lancaster's university data repository, using Pure, which provide access to datasets generated by university research with the appropriate license. Data will be held for a maximum of 10 years after project conclusion as per Lancaster university regulation, which will have data stewardship by then.

How long and where will you store any personal and/or sensitive data?

Data will be stored on the university provided, password protected, one-Drive cloud-based platform as advocated by the university policy. Personal data identifiers will be separated and stored independently from the anonymised data set in another encrypted file. Additionally, personal data will be deleted upon dissemination of research final report.

Please explain when and how you will anonymise data and delete any identifiable record?

Data collected will be anonymized, at the earliest point possible, in compliance with the ICO anonymisation code of practice. At the time of transcription, pseudonyms will be given to the interviewees beforehand, with an encrypted Microsoft Excel Sheet containing the key kept only by the researcher. Consent to use audio recordings unaltered for transcribing purposes (with a transcription confidentiality agreement in place) will be obtained from participants as well. If a need for sharing audio recording arises, researcher shall electronically disguise the audio files prior, as per ICO data protection regulations.

Project Documentation*

Important Notice about uploaded documents:

When your application has been reviewed if you are asked to make any changes to your uploaded documents please highlight the changes on the updated document(s) using the highlighter so that they are easy to see.

Please confirm that you have read and applied, where appropriate, the guidance on completing the Participant Information Sheet, Consent Form, and other related documents and that you followed the guidance in the help button for a quality check of these documents. For information and guidance, please use the relevant link below:

[FST Ethics Webpage](#)

[FHM Ethics Webpage](#)

[FASS-LUMS Ethics Webpage](#)

[REAMS Webpage](#)

I confirm that I have followed the guidance.

5 September 2022

Reference #:

Page 15 of 18

In addition to completing this form you must submit all supporting materials.

Please indicate which of the following documents are appropriate for your project:

- Research Proposal (DClinPsy)
- Advertising materials (posters, emails)
- Letters/emails of invitation to participate
- Consent forms
- Participant information sheet(s)
- Interview question guides
- Focus group scripts
- Questionnaires, surveys, demographic sheets
- Workshop guide(s)
- Debrief sheet(s)
- Transcription (confidentiality) agreement
- Other
- None of the above.

Please upload the documents in the correct sections below:

Please ensure these are the latest version of the documents to prevent the application being returned for corrections you have already made.

As you are in a DClinPsy course please upload your Research Proposal for this project.

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Research Proposal	Proposal - Coaching into Well-being - For Ethics (F)	Proposal - Coaching into Well-being - For Ethics (F).pdf	05/09/2022	1	1.3 MB

Please upload all consent forms to be used in this project.

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Consent Form	Appendix 7 - Consent forms	Appendix 7 - Consent forms.pdf	05/09/2022	1	142.0 KB

Please upload all Participant Information Sheets:

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Participant Information Sheet	Appendix 6 - Participant information sheet	Appendix 6 - Participant information sheet.pdf	05/09/2022	1	230.8 KB

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Advertising materials	Appendix 5 - Advertising materials	Appendix 5 - Advertising materials.pdf	05/09/2022	1	397.1 KB

Please upload all different Interview Question Guides.

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Interview question guide	Appendix 4 - Interview question guides	Appendix 4 - Interview question guides.pdf	05/09/2022		116.5 KB

Please upload a copy of your Transcription (confidentiality) agreement

Documents					
Type	Document Name	File Name	Version Date	Version	Size
Transcription (confidentiality) agreement	Appendix 8 - Transcription confidentiality agreement	Appendix 8 - Transcription confidentiality agreement.pdf	05/09/2022	1	135.0 KB

Declaration

Please Note

Research Services monitors projects entered into the online system, and may select projects for quality control.

All research at Lancaster university must comply with the LU data storage and governance guidance as well as the General Data Protection Regulation (GDPR) and the UK Data Protection Act 2018. ([Data Protection Guidance webpage](#))

- I confirm that I have read and will comply with the LU Data Storage and Governance guidance and that my data use and storage plans comply with the General data Protection Regulation (GDPR) and the UK Data Protection Act 2018.

Have you that you have undertaken a health and safety risk assessment for your project through your departmental process? ([Health and Safety Guidance](#))

- I have undertaken a health and safety assesment for your project through my departmental process, and where required will follow the appropriate guidance for the control and management of any foreseeable risks.

When you are satisfied that this application has been completed please click "Request" below to send this application to your supervisor for approval.

Please read the terms and conditions below:

- You have read and will abide by [Lancaster University's Code of Practice](#) and will ensure that all staff and students involved in the project will also abide by it.
- If appropriate a confidentiality agreement will be used.
- You will complete a data management plan with the Library if appropriate. [Guidance from Library](#).
- You will provide your contact details, as well as those of either your supervisor (for students) or an appropriate person for complaints (such as HoD) to any participants with whom you interact, so they know whom to contact in case of questions or complaints?
- That University policy will be followed for secure storage of identifiable data on all portable devices and if necessary you will seek [guidance from ISS](#).
- That you have completed the ISS Information Security training and passed the assessment.
- That you will abide by Lancaster University's lone working policy for field work if appropriate.
- On behalf of the institution you accept responsibility for the project in relation to promoting good research practice and the prevention of misconduct (including plagiarism and fabrication or misrepresentation of results).
- To the best of your knowledge the information you have provided is correct at the time of submission.
- If anything changes in your research project you will submit an amendment.

Applicant Only: To complete and submit this application please click "Sign" below:

Appendix 9: Research Recruitment – Announcement E-mail



CALL FOR RESEARCH VOLUNTEERS

If you participated in our latest coaching program, share what you think?

Coaching into well-being
Cognitive behavioral
coaching program realist
Evaluation



Join our online Q&A session !

DD/MM/YYYY

HH:MM AM/PM

https://teams.microsoft.com/_/#/

For further inquiries please contact,

Researcher Name:

Ola Abdelfatah

Email: o.abdelfatah@lancaster.ac.uk

As part of a PhD research project, we are eager to know about your coaching experience. Share your feedback on whether the coaching sessions impacted your goal attainment and well-being in the workplace

Use the link below to register interest in the study,

<https://www.surveymonkey.com/r/CRSB7MJ>

Upon registration you will receive an e-mail with the participant information sheet, detailing all study information.

☐

Research Interest registration Form.

Access form through: <https://www.surveymonkey.com/r/CRSB7MJ>



1. What is your name?

2. What is your e-mail?

3. What is your age?

4. What is your gender?

- Female
- Male
- Prefer not to say

Participant Information Sheet – Coachees

Coaching Into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace.

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

Thank you for your interest in my study. My name is Ola Amr Abdelfatah, and I am conducting this research as a student in the Organisational Health and Well-being Doctorate programme at Lancaster University, Lancaster, United Kingdom.

What is the study about?

The purpose of this study is to explore how cognitive behavioural life coaching programme works, for whom and in what context. This is done by exploring how the programme impacts individual goal attainment and subjective well-being for employees in today's demanding work environments.

Why have I been approached?

You have been approached because the study requires information from stakeholders of the latest coaching programme offered by the firm. The stakeholders include those such as you who voluntarily participated as coachees.

Additionally, please note that the researcher was not involved in the implementation of this pilot coaching round, despite being an internal coach employed by the firm. The researcher has no access to information shared during the coaching sessions with your coaches. Access is only requested from you on coaching feedback tools and debriefing sheets giving you freedom to share what is appropriate for you. The researcher is also open to all kinds of comments as the primary aim of this research is to evaluate the coaching programme for improvement or replacing it all together to best meet your needs.

Do I have to take part?

No. Participation in this study is completely voluntary. Participation in this study will not by any means affect your work or your rights to receive support from the firm.

What will I be asked to do if I take part?

If you decide you would like to take part, you would be asked to commence by electronically signing consent to use your information from the organisation such as your role and relation

to the coaching programme, or your coaching sessions. You will also be prompted to either share previously communicated coaching feedback and debriefing sheets or fill in a short questionnaire. This is followed by booking an interview slot. Interviews are expected to take a maximum of 60 minutes, that can be scheduled during the day at lunch break or outside working hours depending on your preference. If more time is needed another interview might be scheduled. Interviews will be voice recorded using a digital recorder, and notes might be taken during the interview.

Will my data be identifiable?

The data collected for this study will be stored securely, on Lancaster University's secure one drive cloud storage, and only the researchers conducting this study will have access to these data:

- The data files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected until dissemination of research results.
- At the end of the study, hard copies of anonymised transcripts will be kept securely in a locked cabinet for ten years. At the end of this period, they will be destroyed.
- The electronic version of your interview will be anonymised by removing any identifying information including your name. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.
- All your personal data will be confidential and will be kept separately from your interview transcripts, only the researcher will have access to your data.
- Data will be collected in an anonymised way. The interviewer will avoid addressing you by your name. Also, you will be reminded by the interviewer to avoid mentioning your name or any personal identifying details during the interview.
- [All transcripts will be combined for analysis and reference will not be made to the role of the responder.](#)

There are some limits to confidentiality: if what is said makes the interviewer think that you, or someone else, is at significant risk of harm, s/he will have to break confidentiality and speak to a member of staff about this. If possible, s/he will tell you if s/he must do this.

What will happen to the results?

The results will be summarised, synthesised, and reported in a dissertation/thesis and may be submitted for publication in an academic or professional journal. [All transcripts will be combined for analysis and reference will not be made to the role of the responder.](#)

Are there any risks?

There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet. You also have the right to exit the interview at any point, and resume based on convenience.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits in taking part. However, the experience might enhance your self-awareness through engaging in insightful conversations that increase your self-reflection capacity.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:

Researcher: Ola Amr Abdelfattah

Tel:

Title; Email:

Research Supervisor:

Tel:

Email: [j](#)

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Email:

If you wish to speak to someone outside of the Organisational Health and Well-being Doctorate Programme, you may also contact:

Chair of FHM REC Email:
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG

Resources in the event of distress

Should you feel distressed either because of taking part, or in the future, the following resources may be of assistance.

The Wellness Hub

Tel: Email:

Address:

Online Counselling Contacts:

www.betterhelp.com

www.shezlong.com

Thank you for taking the time to read this information sheet.

Participant Information Sheet - Coach

Coaching Into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace.

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

Thank you for your interest in my study. My name is Ola Amr Abdelfatah, and I am conducting this research as a student in the Organisational Health and Well-being Doctorate programme at Lancaster University, Lancaster, United Kingdom.

What is the study about?

The purpose of this study is to explore how cognitive behavioural life coaching programme works, for whom and in what context. This is done by exploring how the programme impacts individual goal attainment and subjective well-being for employees in today's demanding work environments.

Why have I been approached?

You have been approached because the study requires information from stakeholders of the latest coaching programme offered by the firm. The stakeholders include those who conducted the programme as coaches.

Additionally, please note that, the researcher was not involved in the implementation of this pilot coaching round, despite being an internal coach employed by the firm. The researcher has no access to information shared during the coaching sessions. [The researcher is also open to all kinds of comments as the primary aim of this research is to evaluate the utility of this coaching programme the organisation. Please keep in mind that this is not regarded as an evaluation of your performance as a coach.](#)

Do I have to take part?

No. Participation in this study is completely voluntary. Participation in this study will not by any means affect your work or your rights to receive support from the firm.

What will I be asked to do if I take part?

[If you decide you would like to take part, you would be asked to commence by electronically signing consent to use your information such as your role and relation to the coaching programme.](#) This is followed by booking an interview slot. Interviews are expected to take a maximum of 60 minutes, that can be scheduled during the day at lunch break or outside working hours depending on your preference. If more time is needed another interview might be scheduled. Interviews will be voice recorded using a digital recorder, and notes might be taken during the interview.

Will my data be identifiable?

The data collected for this study will be stored securely, on Lancaster University's secure one drive cloud storage, and only the researchers conducting this study will have access to these data:

- The data files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected until dissemination of research results.
- At the end of the study, hard copies of anonymised transcripts will be kept securely in a locked cabinet for ten years. At the end of this period, they will be destroyed.
- The electronic version of your interview will be anonymised by removing any identifying information including your name. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.

- All your personal data will be confidential and will be kept separately from your interview transcripts, only the researcher will have access to your data.
- Data will be collected in an anonymised way. The interviewer will avoid addressing you by your name. Also, you will be reminded by the interviewer to avoid mentioning your name or any personal identifying details during the interview.
- **Even through there is only one coach, all transcripts will be combined for analysis and reference will not be made to the role of the responder.**

There are some limits to confidentiality: if what is said makes the interviewer think that you, or someone else, is at significant risk of harm, s/he will have to break confidentiality and speak to a member of staff about this. If possible, s/he will tell you if s/he must do this.

What will happen to the results?

The results will be summarised, synthesised, and reported in a dissertation/thesis and may be submitted for publication in an academic or professional journal. **All transcripts will be combined for analysis and reference will not be made to the role of the responder.**

Are there any risks?

There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet. You also have the right to exit the interview at any point, and resume based on convenience.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits in taking part.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:

Researcher: Ola Amr Abdelfattah

Tel:

Title; Email: o.abdelfatah@lancaster.ac.uk

Research Supervisor:

Tel:

Email:

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Email:

If you wish to speak to someone outside of the Organisational Health and Well-being Doctorate Programme, you may also contact:

Chair of FHM REC Email:
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster
LA1 4YG

Resources in the event of distress

Should you feel distressed either because of taking part, or in the future, the following resources may be of assistance.

The Wellness Hub
Tel:
Email:
Address:

Online Counselling Contacts:

www.betterhelp.com

www.shezlong.com

Thank you for taking the time to read this information sheet.

Participant Information Sheet – Policy Makers and Management

Coaching Into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace.

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

Thank you for your interest in my study. My name is Ola Amr Abdelfatah, and I am conducting this research as a student in the Organisational Health and Well-being Doctorate programme at Lancaster University, Lancaster, United Kingdom.

What is the study about?

The purpose of this study is to explore how cognitive behavioural life coaching programme works, for whom and in what context. This is done by exploring how the programme impacts individual goal attainment and subjective well-being for employees in today's demanding work environments.

Why have I been approached?

You have been approached because the study requires information from stakeholders of the latest coaching programme offered by the firm. The stakeholders include those who were

involved with the design and implementation of the programme including talent management policy makers and management members.

Please note that, the researcher was not involved in the implementation of this pilot coaching round, despite being an internal coach employed by the firm. The researcher has no access to information shared during the coaching sessions. [The researcher is also open to all kinds of comments as the primary aim of this research is to evaluate the coaching programme for improvement and better allocation of organisational investments.](#)

Do I have to take part?

No. Participation in this study is completely voluntary. Participation in this study will not by any means affect your work or your rights to receive support from the firm.

What will I be asked to do if I take part?

[If you decide you would like to take part, you would be asked to commence by electronically signing consent to use your information from the Organisation such as your role and relation to the coaching programme.](#) This is followed by booking an interview slot. Interviews are expected to take a maximum of 60 minutes, that can be scheduled during the day at lunch break or outside working hours depending on your preference. If more time is needed another interview might be scheduled. Interviews will be voice recorded using a digital recorder, and notes might be taken during the interview.

Will my data be identifiable?

The data collected for this study will be stored securely, on Lancaster University's secure one drive cloud storage, and only the researchers conducting this study will have access to these data:

- The data files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected until dissemination of research results.
- At the end of the study, hard copies of anonymised transcripts will be kept securely in a locked cabinet for ten years. At the end of this period, they will be destroyed.
- The electronic version of your interview will be anonymised by removing any identifying information including your name. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.
- All your personal data will be confidential and will be kept separately from your interview transcripts, only the researcher will have access to your data.
- Data will be collected in an anonymised way. The interviewer will avoid addressing you by your name. Also, you will be reminded by the interviewer to avoid mentioning your name or any personal identifying details during the interview.
- [All transcripts will be combined for analysis and reference will not be made to your role, either to the programme or to your individual role in the organisation.](#)

There are some limits to confidentiality: if what is said makes the interviewer think that you, or someone else, is at significant risk of harm, s/he will have to break confidentiality and speak to a member of staff about this. If possible, s/he will tell you if s/he must do this.

What will happen to the results?

The results will be summarised, synthesised, and reported in a dissertation/thesis and may be submitted for publication in an academic or professional journal. [All transcripts will be combined for analysis and reference will not be made to the role of the responder.](#)

Are there any risks?

There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet. You also have the right to exit the interview at any point, and resume based on convenience.

Are there any benefits to taking part?

[Although you may find participating interesting, there are no direct benefits in taking part. However still, the experience might enhance your awareness about your role in the implementation of this programme through engaging in insightful conversations.](#)

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:

Researcher: Ola Amr Abdelfattah

Tel: Title; Email: o.abdelfatah@lancaster.ac.uk

Research Supervisor: Professor Jane Simpson

Tel:

Email:

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Email:

If you wish to speak to someone outside of the Organisational Health and Well-being Doctorate Programme, you may also contact:

Chair of FHM REC Email:
Faculty of Health and Medicine
(Lancaster Medical School)
Lancaster University
Lancaster

LA1 4YG

Resources in the event of distress

Should you feel distressed either because of taking part, or in the future, the following resources may be of assistance.

The Wellness Hub

Tel:

Email:

Address:

Online Counselling Contacts:

www.betterhelp.com

www.shezlong.com

Thank you for taking the time to read this information sheet.

CONSENT FORM

Title of research project: Coaching into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace.

We are asking if you would like to take part in a research project, examining how, why and under what circumstances does cognitive behavioural life coaching impacts individual goal attainment and well-being in today's demanding work environments.

Before you consent to participating in the study, we ask that you read the participant information sheet. If you have any questions or queries before proceeding to the survey, please speak to the researcher.

By signing this form, you confirm that,

1. You have read the participant information sheet and understood what is expected of you in the project: "Coaching into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace"?
2. You have had the opportunity to ask any questions and to have them answered.
3. You understand that your participation is voluntary and that you are free to withdraw at any time without giving any reason, without your medical care or legal rights being affected. You can withdraw by sending an e-mail to the researcher directly with your withdrawal request.
4. You understand that you have two weeks post interview completion data to withdraw your data completely from the study. Once your data have been anonymised and incorporated into analysis it might not be possible for it to be withdrawn, though every attempt will be made to extract your data, up to the point of publication.
5. You understand that your interviews will be audio-recorded and transcribed, and that data will be protected on encrypted devices and kept secure.
6. You understand that the audio recordings, separated from any personal identifiers, might be shared unaltered with transcribers with a transcription confidentiality agreement in place.
7. You understand that the information from your interview response will be discussed with research supervisor at Lancaster University, pooled with other participants' responses, anonymised, and may be published; all reasonable steps will be taken to protect the anonymity of the participants involved in this project.
8. you consent to Lancaster University keeping the anonymised data for a period of 10 years after the study has finished.
9. You understand that any information you give will remain confidential and anonymous unless it is thought that there is a risk of harm to yourself or others, in which case the researcher will/may need to share this information with their research supervisor.
10. you consent to take part in the above study.

Name of Participant: _____

Signature _____

Date _____

I, the researcher, confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that I has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of researcher: _____

Signature _____

Date _____

Appendix 12: Open-ended Questionnaire

Tell us about your experience!

This sheet is designed to gather information about your experience in the latest coaching programme trial run. Feedback given will be used to help design your interviews for research purposes.

Please give feedback by answering the questions below.

Coach Name: _____

Questions 1: List the main issues discussed during the coaching programme?
Question 2: How do you feel about the programme, overall?
Question 3: What is the best outcome/s of this programme?
Question 4: How can this programme improve in the future?

Thank you for your answers, please proceed to book your interview slot.
Looking forward to seeing you,

Appendix 13: Transcription Confidentiality Agreement

Confidentiality Agreement for the Transcription of Qualitative Data

Name of Study:	Coaching Into Well-being: Realist evaluation of cognitive behavioural coaching programme in enhancing goal attainment and well-being in the workplace
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In accordance with the Research Ethics Committee at Lancaster University (UREC), all participants in the above-named study are anonymised. Therefore, any personal information or any of the data generated or secured through transcription will not be disclosed to any third party.

By signing this document, you are agreeing:

- not to pass on, divulge or discuss the contents of the audio material provided to you for transcription to any third parties.
- to ensure that material provided for transcription is held securely and can only be accessed via password on your local PC.
- to return transcribed material to the research team when completed by the agreed deadline and do so in password protected files.
- to destroy any audio and electronic files held by you and relevant to the above study immediately after transcripts have been provided to the research team, or to return said audio files.
- to assist the University where a research participant has invoked one of their rights under data protection legislation.
- to report any loss, unscheduled deletion, or unauthorised disclosure of the audio material to any third parties, to the University immediately
- only act on the written instructions of the University/researcher
- to, upon reasonable request, allow the researcher, or other University representative, to inspect the location and devices where the audio material is stored to ensure compliance with this agreement.
- to inform the University's Data Protection Officer if you believe you have been asked to do something with the audio material which contravenes applicable data protection legislation.
- to not employ any other person to carry out the work on your behalf.

Your name (block capitals) _____

Address at which transcription will take place.

Your signature _____

Date _____

Appendix 14: Theory Refinement Template

Adopted from Gilmore et al. (2019).

IPT#:	Title:	
IPT:		
Code/Quote:		
Source:		
C:	M:	O:
Resulting CMO:		
Support/ Refute/ Refine		
How/Decision Making: (Thought Process)		
Refined Programme Theory:		
Links/ Ripple Effects:		
Other Codes (Links to):		
Note:		

Appendix 15: Sample Code Configuration and Data Analysis for Review

Initial List of codes (inspired by sections from the data extraction form in Appendix 3) upon review commencement

Codes

- Name
- 1. Context
 - Institution or Organization Description
 - Target Audience or Participants
- 2. Intervention
 - Coaches and coach's qualifications
 - Coaching Duration and Timing
 - Established instruments
 - Intervention Aim
 - Intervention Description
- 3. Mechanisms
 - Coaching Process and Techniques
 - Coaching Rationale
 - Substantive or Formal Theory
 - Success Measures
- 4. Outcomes
 - 1. Attitude Change
 - 2. Behavior Change
 - 3. Knowledge and Skills Change
 - 4. Goal Attainment
 - 5. Reactions or Satisfaction
 - 6. Well-being
 - 7. Other benefits to coachees
 - 8. Benefits to third party
 - 9. Organizational Processes Changes
- 5. Other Codes
 - Appraisals and Study Evaluation
 - Coaching
 - Supplementary Interventions

List of Codes amended as per provisional CMO configured

Literature - CMO

- ⊕ Name
 - ⊖ Literature - Context
 - C1 - Coachee - Introspection
 - C2 - Coachee - Motivation to change
 - C5 - Coach - Case assessment and conceptualization
 - ⊕ C6 - Coach - Building Rapport or Trust
 - C4 - Org - Awaerness - Training Sessions
 - C3 - Org. - Intervention Communication
 - C7 - Coaching Relationships
 - ⊖ Literature - Mechanisms
 - ⊖ 1. Resource Mechanism
 - M1 - Guided Discovery
 - M1 - Inference Chaining
 - M1 - Thought Diary for Self-reflection
 - M2 - Practice Self-directed mental techniques
 - ⊕ M3 - Challenge Irrational Beliefs - Cognitive Re-orientation Techniques
 - M4 - Behavioral Experiments and Exposure
 - ⊕ M6 - Monitor Progress
 - M7 - Evaluate progress and maintain feedback loops
 - M5 - Goal Setting
 - M5 - Goal Directed Action Planning
 - ⊖ 2. Reasoning Mechanism
 - RM2 - Enhance Metacognitive Skills
 - ⊕ RM1 - Enhance Self Awareness of internal dialog and self-talk
 - RM3 - Enhance self-regulation
 - RM5 - Engage in Positive way of thinking
 - RM6 - Increase Pathway and Agency Thinking
 - RM4 - Replace Irrational beliefs and Negative Thinking
 - RM8 - identify performance blocks
 - RM7 - Reality testing of replaced beliefs
 - RM10 - Maintenance Strategies
 - RM11- Problem Solving Skills

In Codes ... Code to Coding (Code

Literature - CMO

- ⊕ Name
 - RM11- Problem Solving Skills
 - RM11- Solution Seeking Methodology
- ⊖ Literature - Outcome
 - O1 - Enhanced Self-awareness and identify psychological blocks
 - O11 - Enhanced Well-being
 - O10 - Goal attainment
 - O10 - Enhanced Performance and Retention
 - O2 - Enhanced Self-Regulation and Better use of cogntiive Resources
 - O3 - Better Decision Making Skills
 - O4 - Positive Emotions Change
 - O5 - Stress Reduction
 - O6 - Increased Hope
 - O7 - Increase Goal Striving
 - O8 - Construct new productive behaviors
 - O9 - Relapse Prevention
- ⊖ Negative Outcome
 - Being Less Popular due to change
 - Dealing With Critisim

Sample list of all CMOs configured with data experts from the included articles

CMO configurations	Sections of text used to develop the CMO
CMO 1 - When coachees, who are introspective (C1) as well as ready and motivated for change (C2), engage in CBC conversations and exercises such as keeping a thought diary for self-reflection, inference chaining and guided discovery (M1), it enhances their awareness of their internal dialog and self-talk (RM1),	<p><i>ix Files\1. Scoping Search\Neenan, Michael; (2008) - 17</i> People who find it difficult to engage in introspection see it as an ‘intimate’ process they feel uncomfortable with, are not prepared to expend the effort to become aware of, examine and modify their problematic thinking,</p> <p><i>x Files\1. Scoping Search\Neenan, Michael; (2008) - 17</i> or see action as the answer to their current concerns, not ‘navel-gazing’ (navel-gazing is self-absorption or profitless introspection whereas developing realistic thinking is goal-oriented).</p> <p><i>xiv Files\1. Scoping Search\Minzloff, Kathrine A.; (2019) - 5</i> According to Passmore (2007), this approach generally tries to help people to carry out their previously formed intentions or to attain their existing behavioural goals and, thus, considers readiness and motivation to change as a pre-requisite to coaching or as a predictor of the coaching outcome. Hence, in a situation where the coachee appears unmotivated, two interventions may be required, one to produce the desired intention (i.e., MI) and another to facilitate performance of the intended behaviour (i.e., CBC).</p>

increasing their meta-cognitive skills (RM2). This helps employees identify psychological blocks (O1) as thinking errors, self-limiting and irrational beliefs, that lead to troublesome emotions and counter productive behaviours

xv Files\1. Scoping Search\Minzloff, Kathrine A.; (2019) - 5

Increasing motivation to change. When coaching problematic employees who have no intention to change their current behaviour then CBC may not be the appropriate intervention to use initially as the cognitive behavioural approach is primarily used with people who are actively seeking help to support behaviour change (Fishbein & Ajzen,

xvi Files\1. Scoping Search\Minzloff, Kathrine A.; (2019) - 5

Addressing resistance. Employees may be referred for coaching when their behaviours are having a negative impact on their work or on others. Changing behaviours due to external pressure, like this, would be considered as 'controlled' motivation (Anstiss & Passmore, 2013) and is likely to evoke resistance.

xxxix Files\1. Scoping Search\Neenan, Michael; (2008) - 17

Inference Chaining

This involves asking your client a series of assumption-driven questions to tease out her personally significant inferences about a situation to pinpoint its most

lxxix Files\1. Scoping Search\Minzloff, Kathrine A.; (2019) - 5

To help clients acquire the ability to monitor and alter distorted thoughts that are inhibiting them from attaining their coaching goals (Ducharme, 2004), CBC utilises a technique called guided discovery, which is based on Socratic questioning whereby the coach asks the coachee a series of questions that enable the individual to become aware of his or her thinking (McMahon, 2007). The assumption is that by promoting awareness, coaching will help allow a more realistic and rational decision-making process to take place as it moves an individual from a self-limiting mode of thinking to a more adaptable system of identifying several problem-solving strategies.

lxxxii Files\1. Scoping Search\Green, L. S.; Oades, L. G.; Grant, A. M.; (2006) - 9

self-reflective writing exercises

xcix Files\1. Scoping Search\Green, L. S.; Oades, L. G.; Grant, A. M.; (2006) - 9

In the life coaching programme herein, a cognitive behavioural component was employed to encourage examination of self-talk that may hinder or help the goal striving process. Participants were encouraged to increase their agentic thoughts using this technique.

xlvii Files\1. Scoping Search\Neenan, Michael; (2008) - 17

When teaching the ABCDE model, the coach needs to emphasise that A (events or other people) does not cause C (but contributes to it); B (beliefs) largely determines C (consequences). This is an empowering view of how change occurs because it allows us to develop different beliefs (D? E) about A and, consequently, modify our reactions at C; if A really did cause C it would be very difficult, if not impossible, to change our reactions at C as our emotional destiny would be at the mercy of events or lie in the hands of others.

xlviii Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

The early theoretical underpinnings of the cognitive behavioural approach can be traced back to the first century CE, when a stoic philosopher Epictetus observed how people, “are not disturbed by things but by the view they take of them.”

xliv Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

The cognitive perspective was highlighted by the psychiatrist Adler’s observation, that people “determine [themselves] by the meaning [they] give to situations” (Adler, 1958, p. 14).

l Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

Beck developed cognitive therapy (1967, 1976), in which emphasis is placed on the role of “internal dialogue” (Beck, 1976) in influencing an individual’s subsequent feelings and behaviour. Beck found that whilst clients were not always conscious of their internal dialogue, they could learn to identify it, and were then able to examine any automatic, emotion-filled thoughts and where useful, replace them (McMahon, 2007).

li Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

Meichenbaum (1977, 1985) also highlighted the importance of self-talk in what he termed cognitive behaviour therapy and stress inoculation training (Palmer and Szymanska, 2007)

lii Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

Beck’s “internal dialogue” (1976) and Meichenbaum’s (1977, 1985) “self-talk” describe the critical inner voice that tends to encourage caution and self-doubt and can over time negatively impact upon self-esteem and self-worth.

lviii Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

Cognitive therapy adopts a rationalist approach with the underlying assumptions that an individual may first develop metacognitive skills to non-judgmentally observe their own thoughts and may subsequently think logically and empirically to challenge, correct, and replace them (Beck, 1976; Brewin, 2006).

lxix Files\1. Scoping Search\Neenan, Michael; (2008) - 17

learn to think about their thinking (known as metacognition) in more helpful, balanced, and adaptive ways. The philosopher Simon Blackburn describes self-reflection

lxx Files\1. Scoping Search\Neenan, Michael; (2008) - 17

Cognitive coaching, which is taught in educational and other settings, uses metacognition to enhance self-directed learning, improve decision-making skills and problem-solving capacities.

lxxi Files\1. Scoping Search\Palmer, Stephen; Williams, Helen; (2013) - Ch 17

Meichenbaum (1977, 1985) also highlighted the importance of self-talk in what he termed cognitive behaviour therapy and stress inoculation training (Palmer and Szymanska, 2007)

lxxii Files\1. Scoping Search\Neenan, Michael; (2008) - 17

Cognitive behavioural coaching (CBC) helps clients to identify, examine and change such thoughts and beliefs,

xxxi Files\1. Scoping Search\Neenan, Michael; (2008) - 17

The centrepiece of CBC practice is the ABCDE model of identifying psychological blocks and their removal.

Sample contribution of empirical vs. non-empirical evidence in programme theory development and refinement – CMO 3

	Empirical vs. Non-empirical	W : CMO 3 - Coaching Conversations for Cognitive Re-orientation	H : M3 - Challenge Irrational Beliefs - Cognitive Re-orientation Techniques	R : RM4 - Replace Irrational beliefs and Negative Thinking	S : RM5 - Engage in Positive way of thinking	T : RM6 - Increase Pathway and Agency Thinking	M : O3 - Better Decision Making Skills	N : O4 - Positive Emotions Change	O : O5 - Stress Reduction	P : O6 - Increased Hope	Q : O7 - Increase Goal Striving
5 : Green,et. al (2006) - 9	Empirical	1	0	0	4	9	0	0	0	1	0
51 : David, Oana A.;Cobeanu, Oana; (2016) - 4	Empirical	2	0	0	0	0	0	2	0	0	0
33 : Lungu, et. al (2021) - 20	Empirical	2	1	0	0	0	0	0	1	0	0
23 : Gardiner et al (2013) - 25	Empirical	6	0	0	0	0	0	0	6	0	0
6 : Kearns,et. Al (2007) - 31	Empirical	1	1	0	0	0	0	0	0	0	0
49 : Bristol-Faulhammer 2017	Empirical	8	0	6	0	0	1	1	0	0	0
38 : Ogba et. Al (2020).; (2020) - 8	Empirical	10	1	3	0	0	0	0	7	0	0
27 : Gyllensten, et. al(2010) - 32	Empirical	7	2	0	0	0	5	0	1	0	0
55 : Grant, Anthony M; (2003) - 8	Empirical	2	1	0	0	0	0	1	1	0	0
29 : Jones et al (2021) - 13	Empirical	23	1	11	0	0	1	5	6	0	0
	Total Codes from Empirical evidence	62	7	20	4	9	7	9	22	1	0
56 : Hultgren et al(2013) - 9	Non Empirical	1	0	0	0	0	0	0	0	1	1
67 : Dias et al (2017)	Non Empirical	2	2	0	0	0	0	0	0	0	0
39 : Palmer, Stephen; (2009) - 12	Non Empirical	4	4	0	0	0	0	0	0	0	0
54 : Gavriel, Jenny; (2016) - 7	Non Empirical	1	1	0	0	0	0	0	0	0	0
12 : Wang, et.al (2021)	Non Empirical	1	0	0	0	0	0	0	1	0	0
45 : Wallace 2008	Non Empirical	3	1	0	1	0	1	0	0	0	0
60 : O'Donovan, Hugh; (2009) - 13	Non Empirical	1	0	0	0	0	1	0	0	0	0
24 : Gottschalk, Let. al (2019) - 35	Non Empirical	3	1	0	0	0	1	0	1	0	0
19 : Collard & McMahon (2012) - 14	Non Empirical	1	0	0	0	0	0	1	0	0	0
53 : Dinos, Sokratis;Palmer, Stephen; (2015) - 6	Non Empirical	18	15	3	0	0	0	0	0	0	0
42 : Palmer, Stephen;Williams, Helen; (2012) - 7	Non Empirical	7	7	0	0	0	0	0	0	0	0
47 : Yalçõn, Recep (2016)	Non Empirical	8	1	2	0	0	0	5	1	0	0
	Total Codes from Non Empirical Evidence	50	32	5	1	0	3	6	3	1	1

Sample memo showing investigation of substantive theory as well as initial if-then-leading to statements.

Search Project

CMOCs - iteration 1

- Name
- Description
- If-Then Statemen
- Initial Program Th
- Substantive Theo

Coding Substantive Theory If-Then Statements

As per Carvalho, M., Matos, M., & Anjos, M. (2018). Cognitive-Behavioural Coaching: Applications to Health and Personal Development Contexts. *EC PSYCHOLOGY AND PSYCHIATRY*, 7, 119.

- Theory 1: Cognitive Therapy Model (Aaron Beck, 1976)**
- Theory 2: Rational Emotive Behavior Therapy (Albert Ellis, 1962)
- Theory 3: Problem Solving Model (D'Zurilla TJ, 1971) (D'Zurilla TJ, 1986), (D'Zurilla TJ, 1999)
- Theory 4: Goal Setting (Latham G & Locke E, 1991)
- Theory 5: Social Cognition and Self Efficacy theories (Bandura A, 1986).

Török, L., Szabó, Z. P., & Tóth, L. (2018). A critical review of the literature on academic self-handicapping: theory, manifestations, prevention and measurement. *Social Psychology of Education*, 21(5), 1175-1202. <https://doi.org/10.1007/s11218-018-9460-z>

- Theory 6: Covington's self-worth theory (Covington 1984, 1992).
- Theory 7: Implicit theory of ability and Goal Orientation theory.
- Theory 8: Dweck's goal orientation theory.
- Theory 9: theory of goal structures proposed by Ames (1992)

Other,

Theory 10: Self-determination theory

IF	Then	Leading To	Relevant Theory
If an event/ situation/ circumstance occurs	Then three levels of cognitions interact. First is our automatic thoughts, guided by our intermediate level of learned beliefs about social rules and our third deep level of core beliefs	leading to one's emotional behavioural or psychological reaction.	Cognitive Therapy Model (Aaron Beck, 1976)
If the event is negative	then thoughts (the first level of cognition) become rigid, distorted and negatively biased	leading to negative reactions and counter productive behaviours.	Cognitive Therapy Model (Aaron Beck, 1976)
If thoughts are to be dealt with as hypothesis to be validated through coaching conversations that help improve metacognition, identify the cognitive distortions and self-limiting beliefs and determine their accuracy to the coachee	Then coachee's can test the validity of their thoughts and learn to create new understandings to change those limiting beliefs to more productive ones. Thus, stop the constant negative processing of information and generate new thoughts, ideas and beliefs.	Leading to new proactive behaviour to overcoming presented challenges, as well as a more proactive mentality to find easier ways to address future performance difficulties	Research Proposition

In Codes Code to Coding (Codes\Literature Review\1. Realist Review)

IF	Then	Leading To	Relevant Theory
If an event/ situation/ circumstance occurs	Then three levels of cognitions interact. First is our automatic thoughts, guided by our intermediate level of learned beliefs about social rules and our third deep level of core beliefs	leading to one's emotional behavioural or psychological reaction.	Cognitive Therapy Model (Aaron Beck, 1976)
If the event is negative	then thoughts (the first level of cognition) become rigid, distorted and negatively biased	leading to negative reactions and counter productive behaviours.	Cognitive Therapy Model (Aaron Beck, 1976)
If thoughts are to be dealt with as hypothesis to be validated through coaching conversations that help improve metacognition, identify the cognitive distortions and self-limiting beliefs and determine their accuracy to the coachee	Then coachee's can test the validity of their thoughts and learn to create new understandings to change those limiting beliefs to more productive ones. Thus, stop the constant negative processing of information and generate new thoughts, ideas and beliefs.	Leading to new proactive behaviour to overcoming presented challenges, as well as a more proactive mentality to find easier ways to address future performance difficulties	Research Proposition

Sample theory refinement template usage for primary data synthesis – CMO 1

Adapted from Gilmore et. Al 2019: Data Analysis and Synthesis Within a Realist Evaluation

Color Key

IPT + More from literature Review

Data Collection Insights

Data Collection Codes

Questions

Moved to the following box for write up

Any color strike through is included in write up

IPT#:1	Title: Coaching Conversations for Exploration
IPT:	<p>CBC is regarded to take a cognitive path. It aims to change negative thoughts that cause troublesome emotions and counterproductive behavioral patterns, along with altering cognitions through self-reflection and increasing metacognition, to recognize problematic thinking patterns and, thus, modify them to optimize personal functioning (Passmore et al., 2012).</p> <p>Thoughts are manifested in one's internal dialogue, which, according to Palmer and Williams (2013), represents the inner critical voice that tends to promote caution and self-doubt and can have an adverse impact on self views over time if not rationalized.</p> <p>Identifying psychological blocks is This is regarded as the first stage in CBC, given that in reference to cognitive theory, CB approaches promote that "the route to emotional change is cognitive change" (Neenan, 2008, p. 4).</p> <p>By revealing the discrepancies between Situational and Critical A, the coach can direct the coachee's attention to the adverse emotional, physical and cognitive impact of the coachee's rigid irrational belief.</p> <p>Specifics of self-directed mental techniques (M2) were not explicitly discussed in the literature, however these refers to exercises taught to the coachee to control his/her attention and reduce emotional reactivity (RM3) (Minzloff, 2019). Gyllensten et al. (2010) mentions psychoeducation and relaxation exercises as examples. The practice of such techniques allows the coachee to understand their own emotional state to be able to reason with oneself.</p>
Code/Quote:	
Source:	
Program Strategy:	<p>Coaching Conversations for exploration including,</p> <ul style="list-style-type: none"> Inference Chaining - Questioning Guided Discovery - Socratic Questions Reflections Exercises guided by ABCDE Model (writing) (27) keeping a Thought Diary <p>Self Directed Mental Techniques (exercises taught to coachees to control attention and reduce emotional reactivity)</p> <ul style="list-style-type: none"> Psychoeducation Relaxation Exercises <p>(21) signing confidentiality agreements with the coach</p>

Version 1 - Initial thoughts while coding through the data

Context:	Resource Mechanism	Reasoning Mechanism	Outcomes:	Distal Outcomes:
<p>Timing and Readiness (13)</p>	<p>Induce Guided Self-reflection (17) (28) - and voicing things out + Coach questions (P5) (9) (through conversations and exercises) (27)</p> <p>Promote thought Observation</p> <p>Time given to complete reflection exercises (23) + anticipation and relying mainly on the exercises to generate session content</p> <p>Having a conversation (24)</p>	<p>Relevance and reliability (5)</p> <p>Awareness of internal dialog (aka: listening to inner critical voice)</p> <p>Increase Self-awareness - Targeted self awareness (3) including making connections and links(8)</p> <p>Increase meta-cognitive skills (thinking about thinking, the ability to observe thoughts without passing judgments) - "Listen to myself more" (11)</p> <p>Reason belief/Thought with oneself</p> <p>Sense of Ownership (17)(25)</p> <p>Feeling pressured due to anticipation in guided reflection (23)</p> <p>Room to explain oneself (24)</p>	<p>Awareness of default mindset (4)</p> <p>Identify Psychological Blocks by coachee</p> <p>Identify psychological Blocks by coach (7)</p> <ul style="list-style-type: none"> Thinking Errors Self limiting Beliefs Troublesome emotions Counterproductive Behaviors <p>Rationalize inner critical voice</p> <p>More adaptive balanced way of thinking (26) & New Effective Outlook</p> <p>Organize one thoughts (2) - Gaining Clarity (10) - broadening perspective (19) (20)</p> <p>Feelings of discomfort (16)</p> <p>Stress</p> <p>Forcing oneself to write with doubting the accuracy of the reflection + deviating & making the conversation built on it feel irrelevant / unrelatable (23)</p>	<p>Better Use of Cognitive Resources for Goal Attainment</p>

	<ul style="list-style-type: none"> - Focus coachee attention on their own emotional state & Reason emotional state with coachee through conversations - Train to control one's attention 	<ul style="list-style-type: none"> - Awareness on emotional state and how it affects behavior - Rationalize emotions - Better control of attention (?) 	<ul style="list-style-type: none"> - Improved Emotional Handling - Reduce emotional reactivity (6) - Improved Self-regulation 	Improved Well-being + Better Use of cognitive resources for goal attainment
Seeking Professional Help?	12 Guided Self reflection through questions and exercises + Coach's expertise	<ul style="list-style-type: none"> Perceptions of Professional Help. Perceptions of it being a "valid scientific approach" Feeling more at ease (18) Perception of level of goal difficulty decreases (18) 	<ul style="list-style-type: none"> A sense of calmness and acceptance of and trust of to the process More keen to help oneself(18) 	
14 Readiness (willingness to share + admit to one's problems + perceived stability + having the time and energy)	Professional help being offered not sought / having specified a specific number of sessions within a specific timeframe (29)	Feeling Forced		
(15) Session timing during workday Location		<ul style="list-style-type: none"> Pressure Relaxation and willingness/openness to talk 		
(21) Level of how personal the topic to discuss is	Being friendly and building rapport	<ul style="list-style-type: none"> Establish trust connection Feel more at ease Relaxation and willingness/openness to talk 		

Resulting CMO:	<p>CMOC 1(a) - When coachees engage in CBC conversations and exercises such as keeping a thought diary for self-reflection, inference chaining and guided discovery , it enhances their awareness of their internal dialog and self-talk, increasing their meta-cognitive skills. This helps employees identify psychological blocks as thinking errors, self-limiting and irrational beliefs, that lead to troublesome emotions and counterproductive behaviors.</p> <p>CMOC 1(b) - When coachees practice self-directed mental techniques in CBC coaching sessions, it helps them learn to control their attention and decrease their emotional re-activity, thus enhance self-regulation accordingly. This allows better use of cognitive resources for goal attainment.</p>
Support/ Refute/ Refine	
How/Decision Making: (Though Process)	<p>1. Testing thought validity - Moved to CMOC2 - I'm thinking this might be with the challenging because this is where the true testing begin but also there might be level 1 testing, that is the coachee realizing on their own logical fallacies and so - but this is not the resource introduced this is a result. - can this be something like self testing thought validity</p> <p>8/15/2023 4:43 PM - Interview 1 I think it is useful to start the resource mechanism with an action verb describing what is the program strategy used introducing to the setting.</p> <p>2. Organize one thoughts Sometimes the mere awareness works to lead the coachee to adapt a balanced way of thinking (just realizing that the internal dialog is not beneficial) - It might be because this awareness helps them organize their thoughts better but is this like an outcome or a reasoning mechanism?</p> <p>3. Targeted Self-awareness - From CMOC 3 - "We assume a clear link between a single thought or belief and our actions /emotions . But what is the coachee doesn't see this link? Ok its mandatory for the coachee to see it. So the exploration phase is not just to increase self-awareness - it is more of targeted self-awareness !! To clarify the link/line of thought between the belief and the action/goal." - borrowed from CMOC3 based in reflection on the entire process and the reflection of interview 1 demand for practical exercises and tangible action - her saying "ok ana 3arfa nasy bs so what a3ml eh b2a?" (below is moved from CMO 3) We assume a clear link between a single thought or belief and our actions /emotions . But what is the coachee doesn't see this link? Ok its mandatory for the coachee to see it. So the exploration phase is not just to increase self-awareness - it is more of targeted self-awareness !! To clarify the link/line of thought between the belief and the action/goal.</p> <p>Doesn't the recognition of a mere thinking fallacy entail the automatic change since we're logical human beings? Why would someone proceed with a wrong thought or doing sth while they are aware that its not correct. Because its tied somewhere on another subconscious level in a structure that is holding it plausible not necessarily logical but plausible and more verified.</p> <p>4. Awareness of default mindset - The targeted awareness is what causes the awareness of the default mindset that is particular to the goal being encountered</p> <p>5. Relevance and reliability —The conversation has to feel relevant and relatable to the coachee otherwise they will disengage or worse it might result on more confusion - (this is moved to CMOC 2)</p> <p>6. Reduced emotional reactivity - moved to outcome as it is the result of understanding one's emotional state and better handling as well</p> <p>7. Identify Psychological Blocks - Ok so while I was thinking about testing thought validity and its repositioning it occurred to me that identifying psychological blocks occur on two levels, ones that are identified by the coachee they recognize it is problematic and thus opt to change it automatically (these are easily integrated in their default mindset and they might just need simple guidance on the alternative replacements or what to do as a consequence)- other psychological blocks are identified by the coach but not yet realized by the coachee or even realized by the coachee but are supported in the mind map by other benefits and these are the ones that needs challenging and cognitive reorientation. - this is evident in int. 1 case she knew caring for other more than self is not useful but she carried on with it anyways.</p> <p>8/16/2023 2:26 PM - Interview 2</p> <p>8. Targeted self-awareness includes making connection to organize thoughts in a better way that will result at the end for the coachee to be convinced.</p> <p>9. Self-reflection along with the act of voicing things out - it might be tied also to the difference between reflection as an exercise in therapy and as conversation content in coaching? Also the coach guiding the convo with questions is key so it is not a general reflection it is tied to the targeted self-awareness as well. I am wondering if the word induce is correct, I think it's more of guide self-reflection through questions, questions being the program strategy</p> <p>10. OK so when you make connection and links, and organize your thoughts better it helps you gain clarity.</p> <p>11. "I am able to listen to myself more" this can be an indication of increased metacognition ?</p> <p>12. This entire row is newly coded from line 72 to 77 - I am not sure if seeking professional help is a context and the perceptions of it is the reasoning mechanism? - ok so with professional help there are two aspects to consider 1. seeking vs offering because with offering it might feel forced and perceptions of it being professional this makes it acceptable and trustworthy</p> <p>13. So timing and readiness are both contextual factors - "when you are not ready it is difficult to address your problem" - but why? - not being ready might make the sessions feel forced / at times feel exhausted due to life events - Also when it comes to readiness the coachee might not know they are not ready until they try</p> <p>14. Feeling that the sessions are forced can be due to the coachee not being ready at the time / having specified a specific number of sessions within a specific timeframe / not having sought this professional help on the coachee's terms the fact that its offered - sometimes forced help can be useful because the coachee might not know if they r ready or not as per line 109 to 112 Readiness entails openness to talk and share as per line 135 as well as willingness to admit to <u>ones</u>'s problems line 169-175 + perceived stability as well as having the time and energy/effort as per line 654 to 666</p> <p>15. Added as a potential CMO 133-125</p>

8/17/2023 5:47 AM - Interview 2

16. Facing the elephant in the room situation - Focusing on someone's issues and problems might result in distress - The realization that someone has issues might bother people - if these issues are expected to be dealt with in the cognitive reorientation phase when stress reduction is expected if not dealt with properly might trigger feelings of anxiety - "I feel more comfortable now admitting I have problems and working on them" line 169 and 170
17. The guided self-reflection through questioning gives the coachee a sense of ownership given that they reach their own conclusions line 178-183- How is this sense of ownership helpful? - Line 323: "realizing its all in your hands" this motivates change/progress?) tied to the problem from int.7)
18. Line 196 - 197 & 201 - 203
19. Line 235 - 243 - this adaptive way of thinking can include clarity, organizing thoughts, change of certain thoughts or broadening perspective to see things from different angles or consider other people's povs
20. Guided self reflection involves coach questions reflecting proactively addressing the issues and having a solution seeking orientation from the very first session to achieve the targeted awareness. It is not a matter of listening and venting of general reflections or general explorations it is targeted and proactive
21. Potential code from lines 519 - 534 - need to know the outcome of this trust - But the context is the level of how personal the topic is viewed as this moderates the relationship between established trust and openness to share. - signing confidentiality agreements with the coach adds to the trust aspect

8/18/2023 7:24 AM - Interview 3

22. Referencing lines 33 - 38 - it might feel pressuring having someone "watching you" as you write or forcing him to reflect and write anything despite accuracy, feeling rushed to reflect and get something as content (line 77 to 80) for the session this might drive the session somewhere where the coachee might feel the topics discussed are irrelevant or unrelatable (lines 100 - 102). Reference line 55 -58 - the time given for reflection / to complete the exercise can impact how pressured the person feels. Also according to lines 95 to 97 there is a pressure added by making decisions about oneself - stress is an outcome as per lines 484 - 488
23. Line 83 - 86 Coaching conversations and leaving the room entirely for him to complete the exercises made him feel better
24. Sense of Ownership - Lines 421 to 424 - The coach is trying to establish ownership by guiding self reflection and not telling. It'll be useful to remind coachee's that they have a saying and that the upper hand to avoid having to "disagree with the expert" situation - They are the experts in coaching.
25. As per line 538 & 539 - coaching does not only change but can serve to reinforce and improve already existing qualities. - Also putting oneself in someone's shoes is a common example in int. 2 (line 145) & 3 (lines 627)

8/19/2023 12:14 PM - Interview 4

26. Reflection exercises based on ABCDE model -According to lines 75 to 82 - The coachee felt like exercises were repetitive, stating the same thing in different forms. I am assuming that the way they are designed relying on the ABCDE model having to always start with a critical incident might make it feel like it's fetching for problems. Also I am assuming that applying such exercises mechanically just to tick it of the box (in case the program is structured / following a syllabus) might make the exercises feel forced and out of place, leading to the coachee feeling they are looking for problems always and that their exercise are repetitive as they can't find except for the same critical incident over and over. - Lines 147 -169 the coachee discusses a very interesting point of writing exercises being harder but more effective while coaching conversation being more comfortable but less effective in harnessing the reflection in the brain.
27. Line 231 - 235 indicate that guided self reflection includes active listening as well
28. Offered vs. sought - Lines 252 - 256 - When someone is offered coaching they are more likely to take it due to potential for benefit, opportunity and why not kind of moment, so I moved the potential for benefit (probably an RM) under seeking vs. offering - line 286 - 291 its like the coachee is saying he's not going to exert effort to seek (perceived as a task) and then exert effort again to trust, he will consider effort in trusting if offered may be because he doesn't believe in coaching that much? - line 320 - gives the key that with seeking coaching their will be so many concerns and unanswered questions. Line 323 to 326 shows that the coachee will still be contemplating the matter if offered from a friend . This can indicate that the trust in the case of offered programs comes from the perceptions on the one offering since "everything in the environment was good" as per line 316 then trust came from trusting the org too.

8/21/2023 1:29 PM - Interview 5

- Line 260 - 262 - The outcome that has to do with realizing the need for continuous self improvement I think it links to what they say as the coaching ultimate goal of teaching people how to self coach?
- Line 463 - 470 - shows the importance of aligning awareness and self development goals to benefits from coaching to adjust expectations and perceptions making them want to invest more time and pay more attention to coaching as per lines 452 to 455.
- Lines 700 to 707 - shows the difference between those who found the coach's contribution useful and those who did not (as per int. 3) - Also an interesting reflection when looking into the influence of the coach in the process vs. the exercises the coach either have an impact or be seen as a facilitator depending on the level of guidance and engagement

Links/ Ripple Effects:	Ripple effect is captured for outcome of identifying psychological blocks (O1 -> R). I'm wondering if this translates to a context or a resource mechanism? Resources are reflected as the mechanisms introduced intentionally through a <u>programme</u> strategy to elicit a certain outcome. Intentional is the key word here. Context is everything happening around that nonintentional and outside our control. Now identifying psychological outcome in itself is not intentional as it might occur and it might not.? There is no <u>programme</u> <u>strate</u> gy that can be introduced to <u>gura</u> ntee bringing these elements in the equation. They are outside the coach's control. But also they are relevant to the <u>programme</u> not outside factors. I think to this specific CMO (3) it is considered a context as it is outside the <u>programme</u> strategy introduced to this specific CMO/PT. but rather the <u>programme</u> <u>strate</u> gy in CMO 3 operates within this context.
Other Codes (Links to):	CMO 2, CMO 3
Note:	There is a risk here that the identification of problems can lead to negativity and stress. Also the failure of complementing this identification with a plausible solution can lead the coachee to leave in a worse state or for him to render the intervention ineffective.

Sample Refinement Process for realist synthesis - Journal

1. CMO 1

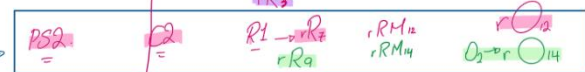
Tuesday, October 10, 2023 8:02 AM

Program Strategy (PS)	Context (C)	Resource (R)	Reasoning (RM)	Outcome (O)	Distal Outcome (DO)
PS1 - In-person training, guided discovery and self-reflection using a reflective thought diary	C1 - Self-reflective C2 - Introspection C3 - Readiness and Motivation to Change	R1 - Coach's Conversations for Exploration R2 - Self-Reflection	RM1 - Awareness of internal dialog (self-talk) RM2 - Increased meta-cognitive skills RM3 - Decrease emotional activity & self-regulation	O1 - Enhanced self-awareness including identifying psychological blocks (thinking errors, self-limiting and irrational beliefs, troublesome emotions, counterproductive behaviors) O2 - Enhanced self-regulation, better use of cognitive resources	DO - Enhanced goal attainment and performance
PS2 - Practising self-directed problem techniques for emotional management			RM4 - Increase meta-cognitive skills RM5 - Increase self-awareness (awareness of internal dialog aka listening to inner critical voice)	O3 - Awareness of default mindset O4 - Identify psychological blocks by coaches vs. coach thinking errors, self-limiting beliefs, troublesome emotions, counterproductive behaviors	
PS3 - Coaching conversations for exploration including, inference sharing, Socratic questioning, guided discovery		R3 - Voicing things out R4 - Promote thought observation R5 - Reduce guided self-reflection	RM6 - Targeted self-awareness (related to dialog in mind) RM7 - Targeted self-awareness (related to dialog in mind) RM8 - Making connections and links RM9 - Reason beliefs/thought with oneself RM10 - Awareness of positive thinking patterns + habits	O5 - Organize one thought O6 - Clarify O7 - Broaden perspective O8 - Rationalize inner critical voice O9 - Develop and strengthen positive thinking patterns	DO1 - More adaptive balanced level of thinking & more effective outlook DO2 - Better use of cognitive resources
PS4 - Reflections exercises guided by ABCDE Model (writing)	C4 - Readiness to admit one's problems C5 - Openness & willingness to share C6 - Trust in coach	R6 - Focus coachee attention on their own emotional state R7 - Reason emotional state with coachee through co-exploration R8 - Time given to complete reflection exercises R9 - Coach's anticipation for a reply and relying mainly on the coachee to generate session content	RM11 - Awareness on emotional state and how it affects behavior RM12 - Understand and accept emotions RM13 - Feeling of discomfort RM14 - Feeling of discomfort RM15 - Feeling of discomfort RM16 - Feeling of discomfort RM17 - Feeling of discomfort RM18 - Feeling of discomfort RM19 - Feeling of discomfort RM20 - Feeling of discomfort	O10 - Reduce emotional reactivity O11 - Improved emotional handling O12 - Improved self-regulation O13 - Feeling of discomfort O14 - Stress O15 - Feeling of discomfort O16 - Feeling of discomfort O17 - Feeling of discomfort O18 - Feeling of discomfort O19 - Feeling of discomfort O20 - Feeling of discomfort	
PS5 - Reflections Exercises guided by ABCDE Model (writing)		R9 - Having a conversation about the exercise R10 - Confrontation - creating addressing the elephant in the room situation R11 - Focusing on eliciting problems via ABCDE exercises and reflection in this exploration stage	RM21 - Room to explain oneself RM22 - Feeling of discomfort RM23 - Feeling of discomfort RM24 - Feeling of discomfort RM25 - Feeling of discomfort RM26 - Feeling of discomfort RM27 - Feeling of discomfort RM28 - Feeling of discomfort RM29 - Feeling of discomfort RM30 - Feeling of discomfort	O21 - Reduce pressure O22 - Resistance and lack of engagement O23 - Feeling of discomfort O24 - Disorientation O25 - Feeling of discomfort O26 - Feeling of discomfort O27 - Feeling of discomfort O28 - Feeling of discomfort O29 - Feeling of discomfort O30 - Feeling of discomfort	

Thought from CMO5
Should Prepare Case Conceptualization be an Outcome for Coaching convo for exploration??

CMO11(a) Guided self-reflection → Targetted → identify Psych. Blocks.
+ thought observation Self-awareness
1.1(b) Drawing Connections → Clarity broad perspective Organizing thoughts
1.1(c) identify Psych. Blocks → reason thoughts + rationalize inner → more adaptive thinking.
Critical Voice

CMO2
1.3(b) written Exercises
1.3(c) convo about exercises
1.2 b elephant in the room
1.2 a problem focused



With written Exercises There are Resource
 ① Time given to complete within session exercise + basing session discussion on exercise
 - Feel Constrained
 - Feeling pressured due to anticipation
 - Stress
 - Feeling forced
 - Potential deviation

for 1.3(a) there might be one before the two rivalries.
 R - Utility of exercise during the session (rR6) → Solidifies thoughts rRM9
 - easier to recall in the future. } more memorable integrate in mindset.
 rO9

Sample Refinement Tables with Supporting Evidence from realist synthesis

	Program Strategy (PS)	Context - (C)	Resource - (R)	Reasoning (RM)	Outcome (O)	Distal Outcome (DO)
Provisional CMO	1 PS1 -Inference chaining, guided discovery and self-reflection keeping a reflection/thought diary	C1 - Introspection C2 - Readiness and Motivation to Change	Coaching Conversations for Exploration	RM1 - Awareness of internal dialog (self-talk) RM2 - Increased meta-cognitive skills	O1 - Enhanced self-awareness including identifying psychological blocks (thinking errors, self-limiting and irrational beliefs, troublesome emotions, counterproductive behaviors)	-
	PS2 - Practicing self-directed mental techniques for emotional management.			RM3 - Decrease emotional activity & self-regulation	O2 - Enhanced self-regulation, better use of cognitive resources	O10 - Enhanced goal attainment and performance PS - Reflection exercises "Alright, was there anything that could have happened to make goal attainment better?" Interviewee: No, as I mentioned before, if I had worked more on the exercises and had more time, I might have felt that I attained the goal." Interview 5 - Reviewed -
Refined CMOs	1.1 PS - Coaching conversations for exploration including, (inference chaining, Socratic questioning, guided discovery) PS - Reflections exercises guided by ABCDE Model (writing)	C - Readiness to admit one's problems C - Openness & willingness to share C - Trust in coach	R - Voicing things out R - Promote thought observation R - Induce and guide self-reflection	RM - Increase meta-cognitive skills RM - Increase self-awareness (awareness of internal dialog aka: listening to inner critical voice) RM - Targeted self awareness	O - Awareness of default mindset O - Identify psychological blocks by coachee vs. coach (thinking errors, self-limiting beliefs, troublesome emotions, counterproductive behaviors)	-
	PS - Goal Setting (CMO 1) "Interviewer: Okay, then what's the difference between informal coaching conversations and formal coaching conversations? Interviewee: For me, one is more structured. We come in knowing that over the next couple of months, we're targeting certain things, and I will be able to do so and so, or I will feel less stressed in certain situations and learn how I can handle those things." Interview 6 - Reviewed2 - PS - Goal Setting (+CMO 1) "One of them was structured with planning for the sessions ahead, with certain goals I was trying to achieve. It was more of a long-term thing." Interview 6 - Reviewed2 -	R - Guided Self-Reflection and thought observation Honestly still, when we started talking I still had this thing in me that said I'm only okay sharing certain points and venting about them but not everything. But we started progressing and while we added to our objectives the conversations got deeper. Interview 7 - Reviewed - Level of Guidance Timing as a context + aspects of willingness to accept guidance I expect that if this program had happened at another time, I wouldn't have been accepting of advice, if there was any advice. But I know it wasn't advice, it was more of guidance. But in another time, I would have saw it as advice and I wouldn't have been accepting of it. So, I wouldn't have been able to see the perspective the coach helped me see. Interview 6 - Reviewed2 -	Journey of Self-Improvement Speaker 1: Okay, but were you already doing reflections or journaling before? Speaker 2: Not as much, or not to the extent I did during and after these sessions. Interview 2 - Reviewed - PS - Reflection exercises "So as far as the exercises were concerned they were really good. I remember an exercise including situational analysis, where you analyze a situation by writing down your expectations and your behaviors and the outcome of this behavior, it makes you see if this behavior was right or wrong, times when you were too harsh or too lenient. It makes you reflect on the consequences of your actions. Interviewer 1: Are you referring to the exercises related to thought and alternative thought? Interviewee 2: Yes, and there was another exercise related to expectations. It involved conducting an experiment to see if your expectations were met or not. I kept failing in my experiment. It involved finding the time to pause to reflect on what happened and what's next. I kept failing until I completed it at the end." Interview 7 - Reviewed - PS - Reflection exercises Interviewee: I would break down, get out of the therapy session suppress everything and go on. With the coaching sessions I used to get things out and discuss it so when I come out, I feel elevated somehow, as if I removed something and that's it. I wrote it down and finalized it, I don't feel like I have homework or something left behind. Or that someone will come next time to ask if I have done this or that Interview 6 - Reviewed2 - PS - Coaching conversation (self-reflection) In coaching, it was more about me thinking, like why did I feel this way at this moment? Why was I being too hard on myself? What was I seeing that could have been better than that? Was it something in my	R - Guided Self-Reflection and thought observation Interviewee 2: The outcome was positive. Yes, and it also depends on the person. It depends on the extent to which one is able to look very deeply inside and get out what is buried. So the more you look inside, the more you find and understand yourself. So yeah I have seen cases for whom the program made a big difference. Interview 7 - Reviewed - R - Guided Self-Reflection and thought observation (CMO 2 - problem solving) Interviewee: I mean, I knew I had these issues, but I didn't know the solution for them. Interviewer: And the program provided the solution or something that led to progress? Interviewee: Yes, definitely. Whether it was through the exercises that I devised it on my own or by the coach pointing them out to me." Interview 5 - Reviewed - R - Guided Self-Reflection and thought observation "Speaker 2: During the sessions, there were many conversations about why I did certain things or what happened that led to certain outcomes. I	R - Guided Self-Reflection and thought observation "Speaker 1: Now that we've identified the outcomes to some extent, I am genuinely interested in how these outcomes emerged. If you have any insights or thoughts on how this happened, please share. Speaker 2: Well, first of all, the questions asked by the coach and the way she led the sessions helped us reach these outcomes. For example, she wouldn't directly tell us what we should do; she would try to communicate so that, in the end, I would come to the conclusion myself about what needs to be done. This approach was helpful, and later on, after the sessions, I tried to program myself to think in this way. The exercises were also mind-opening; they made me more conscious of my actions and behavior." Interview 2 - Reviewed - RM - Metacognitive Skills "It was part of my epiphany. I discovered that I already had a level of self-awareness that I had worked up. But it was a recent realization, around the time we started the sessions. The sessions helped me revisit those things I was conscious about and thought that I am labelling them correctly to find out that these things might have other	

1. CMOC 1 - Coaching Conversations for Exploration

If we divide the sessions into three parts, from the beginning to the end, we have the "express" part where I would talk about anything I had inside me, my concerns, and problems. Then there was the integration point where we worked on those concerns. In the middle part, we were actually working on them. In each session, I would provide feedback, stating what I did. In the last part, we would conclude the outcomes, reflecting on what I did and how it helped in solving the initially identified problems. It was divided like that. Interview 4 - Revised -

PS - Reflection exercises

"how were you able to revisit certain situations. Interviewee: Yes, there was like a piece of paper with questions like what happened, how did you feel then, what did you think about then and what did you do." Interview 6 - Reviewed2 -

PS - Reflection exercises

"I had the tendency to vent to someone, so it started off with venting. Gradually, it became more about problem-solving. More precisely I started doing the exercises, so I thought it wasn't draining but actually helpful and it wasn't a stressor." Interview 6 - Reviewed2 -

PS - Coaching conversation

"The other sessions mainly involved opening up and "

PS - Coaching conversation

"discussing when I apply what I wanted to achieve how does it go" Interview 4 - Revised -

PS - Coaching conversation

But with coaching, I don't need to do all that. It's simple, "Do you have a goal?" "Yes, I do", "Let's see what we can do about it.". We'll then discuss or talk, and then

O - Identify Psychological Blocks

"Do you think that would have made a difference in the effectiveness of the program if you had a lower level of introspection? Interviewee: It's possible." Interview 1_ Revised2 -

hands? So, it was more like a conversation with myself. But with therapy, it was like trying to deconstruct everything I knew and believed in and rebuild it again. Interview 6 - Reviewed2 -

PS - Coaching conversation "Interviewee: Yes. We don't reach the point where we discuss Why do I behave in one way instead of another way. It's like, ""You should do this, and if you do this, it works out."" But with a coach, I'm thinking about my behavior and whether I should alter it in any way and why. I actually become more convinced that maybe this would work. It's like a thinking journey; no one is dictating anything to me in that sense." Interview 6 - Reviewed2 -

PS - Coaching conversation "Interviewer 1: Okay, what helped you the most in the program? The idea that you had ""me time"" and could vent, or the conversation itself? Interviewee 2: No, the conversations themselves. Interviewer 1: Okay, what's the difference between those conversations and any other form of conversations? Interviewee 2: Well, generally I didn't have this kind/type of conversations before, these self conversations, that's why I was very amazed by it. Like, This is focused on me." Interview 7 - Reviewed -

PS - Coaching conversation "Yes, they were similar in that there's a person with whom I sit with and literally just throw all my thoughts out there, and then we start organizing... In therapy, I felt like the person was analyzing my character deeply to reach the root cause and tell me what I need to do. In coaching, it was more of a conversation, and gradually, I would reach the area I wanted to reach without anyone telling me. So, I don't feel like being led to it. It's just me removing certain misunderstandings and misconceptions until I reach to certain ideas or conclusions." Interview 6 - Reviewed2 -

R - Guided Self-Reflection and thought observation During the busy part of the day, it was a good hour for me to step back and reflect on my thoughts or what's going on. Interview 2 - Reviewed -

R - Guided Self-Reflection and thought observation Even if they are telling me off about something I thought or did, they will still be biased to me being my friends. But, talking to a coach is like him being a mirror to me, where I start reflecting on why did I think like that? Why did I act that? How can I make the situation different if it happened again, and I start getting everything out Interview 4 - Revised -

R - Guided Self-Reflection and thought observation During that period, I was at a point where I needed someone to listen to me more than someone who would talk. The coach was there, listening and trying to help me express what wasinside me more than him speaking. When he replied, he asked me questions like, ""Can we do this part differently?"" or he assessed the situation by saying, ""Don't be harsh on yourself,"" as per many situations that I shared. Interviewer: Okay, and what impact did those questions have on you ... when you shared something, and then he asked you questions? Interviewee: It made me reflect thoughtfully on the situations that occurred during our conversations. It made me think, what if it happened again? Okay, the issue didn't need all that (overreacted), maybe I could have thought about it in a better way, ok if it happens again, let's try to analyse the situation before reacting. It was a general issue that I had and was trying to work on, so I expected the situation will reoccur. I thought, then, I needed someone to help me sort something like this out." Interview 4 - Revised -

R - Guided Self-Reflection and thought observation "Interviewee 2: No, no, it's not disconnecting. During self-reflection, I analyze the situations that happened last week and I think about what might happen next week and the possibilities there is and so on. But it's not disconnecting. I understand what disconnecting means, but no. Interviewer 1: So, you're are doing it, but in the form of just thinking. You don't use any exercises or something written or anything like that. Interviewee 2: Not until now. Maybe next time would do so, but currently, no." Interview 7 - Reviewed -

R - Guided Self-Reflection and thought observation Voicing Out "it helped me think about my feelings and behaviors in a different way, that I didn't see before or I didn't connect things together as much. During the coaching sessions, when I voiced things out loud, I realized that I connect them. This helped me organize my thoughts in a better way in my mind" Interview 2 - Reviewed -

was focused on identifying the root cause of the problem. Even now, regardless of the sessions, I still exercise these conversations in my mind, trying to understand why I behaved in certain ways." Interview 2 - Reviewed -

R - Guided Self-Reflection and thought observation

"The things you discovered, did you discover them because of the program and the discussions, or did you simply focus on your own and thought more thoroughly about them? Interviewee: Honestly, it's . It might be because of the discussions, actually. The discussions made us reflect on the problem a bit more, and that's when I started thinking, ""Oh, I also have this other problem."" Interview 5 - Reviewed -

Level of Guidance

I have this urge in me always ... It's the mindset of 'Give a Man a Fish, and You Feed Him for a Day. Teach a Man To Fish, and You Feed Him for a Lifetime', so I prefer to help people be self sufficient and find the answers themselves. And somehow people always have the answer they need. Interview 7 - Reviewed -

Level of Guidance SENSE OF OWNERSHIP

Interviewee: For me, the good things relevant to coaching, I felt that she didn't give me the solutions right away, or entirely lead me while trying to think of solutions or alternative thoughts for myself. Interview 5 - Reviewed -
Level of Guidance "Interviewer: why would you prefer figuring it out on your own then? Interviewee: It mainly has to do with getting used to a way of thinking." Interview 5 - Reviewed -

RM - Metacognitive Skills

It made things clearer to me or helped me understand them better about myself. I started to listen to myself more. Interview 2 - Reviewed -

RM - Awareness

"your general feedback about this experience. Interviewee: It's great. It was a sort of an epiphany as the person gets to explore themselves throughout the sessions, figuring out how far they have come." Interview 6 - Reviewed2 -

RM - Metacognitive Skills

Yes, that epiphany. We are all aware of how we're thinking, but there are some things we fall into without realizing it. Interview 6 - Reviewed2 -

RM - Awareness

Well, to be honest, I didn't feel much progress because , I didn't feel much progress because I didn't feel that there was anything different or new that I wasn't aware of or paying attention to

translations and they are not necessarily negative some of them are positive or rather neutral. I am the one who is choosing this negative feedback for myself. Interviewer: Okay, so there were things that you labeled as awareness before the program, but you discovered that they could actually be problematic thinking. Interviewee: Yes." Interview 6 - Reviewed2 -

RM - Awareness

"Speaker 1: What made you more keen? Why weren't you keen in the beginning? Speaker 2: when I realized that whatever the problem or goal was, that was unattainable to me. I discovered that with a slightly different way of thinking or by addressing the things I wasn't addressing before, I could work on it. Speaker 1: But please help me understand more. Why weren't you keen initially? Keen means being caring? Speaker 2: I don't mean to say that I didn't care in the literal sense. What I meant was that, initially, I saw it as something I couldn't solve or work on. But later on, when I realized that with a few additional steps or some thinking about my approach, or through communicating it, it could become easier." Interview 2 - Reviewed -

RM - Reason belief or thought with oneself +

Examples - identify psychological blocks when someone highlights something for you, you start paying attention automatically, so afterwards ... This is an example I will never forget, one or two days after this session, the same incident we were discussing occurred and when I thought about it I found out I was angry in the situation because I was looking at the entire negative history I had with this specific customer and generalized it while I should be dealing with him in the here and now. I needed to calm down and think. So yes conversations are truly remarkable when they are paired with related experiences during the same period of time so you feel like they are very valid. Interview 3 - Reviewed -

Examples - Awareness

"Interviewee: Both. The thing is to discover something that I really did not know which I'll be glad to grasp. Or know if I've been doing something wrong as with the exercise for the alternative thinking. I remember there was an incident with a customer. I realized my reaction in this incident was based on my judgments due to unpleasant history with this person. He caused me a lot of trouble previously. I realized that I misjudged this customer in this new incident prior to looking at his report and I assumed as per usual that he was bluffing, he did not check the work properly and that he is not reporting something serious. But when I thought about it gradually, thinking may be this time the customer is reporting an actual problem, I found out he actually did." Interview 3 - Reviewed -

Examples - Awareness

Let me tell you, that when I entered the first session,

we can do about it.". We'll then discuss or talk, and then I discover ok that I do this and that, I can keep doing this or I'd better change that, but no one is forcing anything new, this is me as I am.

Interview 6 - Reviewed2 -

PS - Coaching conversation
+ R - Guided Self-Reflection and thought observation

"Mainly, it was divided into three parts. The first part involved discussing the problems and having general discussions about them. (CMO2) The second part was about working on the issues that had occurred before, analyzing the history, and figuring out how to handle them if they were to happen again. (CMO3) The third part consisted of the exercises I would do, where we would review the results. If there was a new situation that I encountered, I would discuss how to approach it. So in sum, discussion of problems, analyzing past events related to these problems and performing exercises to help plan what to do if I am too encounter these situations in the future."

Interview 5 - Reviewed -

Interview 2 - Reviewed -

R - Guided Self-Reflection and thought observation **Being Guided**

"It was a matter of raising my hand and saying, ""I'm stuck in my thoughts, I don't know how to get out of this loop."" I needed someone to help me organize my thoughts and see if what I'm saying is actually a healthy and structured way of thinking or if it's a never-ending loop."

Interview 6 - Reviewed2 -

R - Guided Self-Reflection and thought observation

"Speaker 2: Yes, actually even before the sessions, I was already journaling. It might have been more of journaling random thoughts. But she helped me organize my journals in a certain way.

Speaker 1: So, she guided you and told you to keep the journal in a specific way or was it your own conclusions?

Speaker 2: Yes, she helped me with tips on what to do.

Speaker 1: So, do you remember anything from those tips?

Speaker 2: I remember that if I had a bad day, for example, I would write down the things that made the day bad. Then I would on the positives and negatives, rather than seeing everything as negative."

Interview 2 - Reviewed -

R - Guided Self-Reflection and thought observation **Thought Observation**

"The idea was that individuals track their thoughts, knowing what things they need to and can work on as oppose to things that are major issues where they need to seek help. There are things that can be dealt with if I was provided with the right tools, I'd be able to direct my thoughts and actions."

Interview 6 - Reviewed2 -

Level of Guidance

when it comes to what could have been added to the sessions to enhance my experience .. sometimes during the conversations I needed examples.

Interview 3 - Reviewed -

Level of Guidance **GUIDED REFLECTION**

"If we evaluate the coach's contribution, I felt that we could improve it a bit, but this might be my personal view. This might be related to missing knowledge on the coach's behalf or the coach isn't simply willing to guide, and this made me confused at times."

Interview 3 - Reviewed -

Level of Guidance

Interviewer: Does it have to do with the coach's knowledge about the topic? Interview 3 - Reviewed - Alaa

Level of Guidance **GUIDED REFLECTION**

"Interviewee: Definitely it has to do with the coach. Whether it's the coach's decision to not contribute to this discussion to probe the solution out of the coachee. But if the coach is not doing so deliberately then there must be lack of knowledge. If the coach is not intentionally withholding guidance then there must be something missing

Interviewer: so if this is the coach unspoken strategy, you do not think it's the best? Interviewee: exactly Interviewer: But if this is not a strategy and it is not intentional then it might indicate a lack of knowledge or skill on the coach's behalf?

Interviewee: Exactly."

Interview 3 - Reviewed -

Level of Guidance **GUIDED REFLECTION**

"Interviewer: I have a question. You mentioned earlier that it was nice that the coach didn't always express their opinion. Why was that good for you?

Interviewee: What I meant is that it achieved the goal of coaching. The coach wouldn't immediately give their opinion, allowing me to come up with the solution myself. And I also liked that it wasn't always strictly applied; it started normally, but she would also express her opinion at times in the middle. I felt that she managed this aspect well. She neither said, "I am not sharing my opinions at all" nor ""This is my opinion, and I'll help you right away,"" without me putting in any effort.

Interviewer: How did it make you feel when she didn't express her opinion, and how did you feel when she did express her opinion? Interviewee: When she didn't express her opinion, it gave me the opportunity to thoroughly think

and understand the situation for myself. I was fine with that; it didn't bother me at all. At the same time, I shared my thoughts and she found something to be problematic about them, the coach will help me fix this one way or another. The other thing was when she did express her opinion, I felt like"

Interview 5 - Reviewed -

Level of Guidance **GUIDED REFLECTION**

"Interviewer: Ok just to recap on your point here, So you are saying that you need examples when you can not relate or when you do not understand the point and the coach is not able to provide you with good examples?"

didn't feel that there was anything different or new that I wasn't aware of or paying attention to

Interview 1 _Revised2 -

RM - Awareness
everything we talked about was something that I was already aware of, Interview 1 _Revised2 -

RM - Awareness
I have already known most of these things about myself a long time ago. Interview 1 _Revised2 -

RM - Awareness

"it comes to self awareness did the program help in any way, or did it not help?

Interviewee: it did help in the sense that she tried to correct false thinking patterns. For example, she asked if I could think of things in a different way or what I would do if we considered a different perspective. She tried to redirect my thinking, which was good. But as I mentioned before, im still confused on what to do next."

Interview 1 _Revised2 -

RM - Awareness

"she was trying to make me see what I am supposed to do and do things differently, but I already knew that I should try to change those things. So, I was not sure what should I do?"

Interview 1 _Revised2

RM - Awareness

So, I know the things that I should work on, you understand me. I didn't feel like, "Aha! Yes, now I get it!"

Interview 1 _Revised2

O - Identify Psychological Blocks **importance of targeted awareness not general awareness**

"... about one of the first outcomes you asked about which was identifying psychological blocks and other issues. I told the coach frankly in my feedback. She didn't help me discover something new about myself. So, if someone hasn't gone through that identification process, they would need the coach's help to identify and address those issues. I don't know if it was done that way with me because I already had self-awareness, or if the approach itself wasn't effective. I'm not sure."

Interview 1 _Revised2 -

RM - Awareness

Others already knew some of the things they were learning inside, so they didn't see the benefit.

Interview 6 - Reviewed2 -

RM - Awareness

SO I focus on building a career and a personality. So even if I feel like I'm working too much, I am now aware its because I'm building. At the same time not working too much to the extend that makes me burn out Interview 7 - Reviewed -

RM - Awareness

I discovered that there are one or two more points that I need to work on, and I honestly mentioned them. But, it felt like once you start improving things, you discover other things that needs improvement. Interview 5 - Reviewed -

RM - Awareness

I discovered the importance of spending time with myself. Interview 7 - Reviewed -

Examples - Awareness

Let me tell you, that when I entered the first session, I told the coach "I don't know what to talk about, but Alhamdulillah, my life is good. I don't have any traumas, nothing bad happened to me that troubles me so bad that I can't carry on with it, so I don't know what to discuss." But then I figured out some small things that ruin the beautiful big picture, and at many points I won't notice whats in this big picture because im focusing on the little things that ruins it for me. So that's something faulty that I discovered through this exercise. So yeah, I underestimate myself, that's the thought or a belief that is changing.

Interview 7 - Reviewed -

(RM) - Sense of Ownership

What I am trying to say is that I didn't get out of the session thinking" the coach thinks I should do this" in any way but rather "I'm thinking I should do this".

Interview 6 - Reviewed2 -

O - Identify Psychological Blocks

Interviewer: And through revisiting these situations, you were able to identify blocks? Interviewee: Yes.

Interview 6 - Reviewed2 -

O - Identify Psychological Blocks

"There was something called thinking errors or thoughts, on how you deal with certain situations. That was a golden tool for me because as a person, I try to rationalize certain things. Usually, I used to think that I should have done x, y & z. This should and must way of thinking started to change a bit and I started to think ok what can I do better next time or what is it that I need to know in order to handle these situations better."

Interview 6 - Reviewed2 -

O - Identify Psychological Blocks

these outcomes weren't achieved during the sessions for me to identify no. I already told her from day one that I have a problem with this.

Interview 1 _Revised2 -

Examples - identify psychological blocks

"I didn't know what limiting beliefs were.

Interviewer: Okay, give me an example then.

Interviewee: The most common was the belief that I won't be able to do something because I do not know how to and I've never tried it before."

Interview 6 - Reviewed2 -

Examples - identify psychological blocks

I was the type of person who classify people into just two categories either too close or if an incident happened that I didn't like I'll lose them completely. But she told me that it's not necessary to see everyone as either this or that; you can consider relating to people using a scale. For example, someone can be just a good colleague at work, but not necessarily a close friend. I can have friends and acquaintances and even have different degrees of friends. This perspective made a significant difference for me. As I always had this perspective of "all or nothing".

Interview 5 - Reviewed -

Interviewer: not necessarily not able to ... more times I just felt like she doesn't want to .. because she wanted to probe the answers out of me. Interviewer: and what do you think of this?
Interviewee: Most of the time I did not feel like it is a good thing"
Interview 3 - Reviewed -

Level of Guidance

"Interviewer: Well according to literature there are two types of support interventions, these are coaching and mentoring. We spoke about this previously. So if I get you correctly, you prefer having a mentor who gives you certain steps to follow? Interviewee: Its not at all mandated for him to give me specific steps, but not with no guidance at all as well. Interviewer: So, it's coaching, but you want some contribution from the coach?"

Interviewee: Not always, but sometimes when I'm distracted and don't know what to do, I need someone to tell me. ""Hey, you need something like this,"" or ""You need to start looking in that area to do this."" I feel it's not about writing steps 1, 2, 3."

Interview 3 - Reviewed -

(RM) - Sense of Ownership GUIDED REFLECTION

the questions asked by the coach and the way she led the sessions helped us reach these outcomes. For example, she wouldn't directly tell us what we should do; she would try to communicate so that, in the end, I would come to the conclusion myself about what needs to be done. This approach was helpful, and later on, after the sessions,

Interview 2 - Reviewed -

I tried to program myself to think in this way. The exercises were also mind-opening; they made me more conscious of my actions and behavior.

(RM) - Sense of Ownership SENSE of OWNERSHIP

"Interviewee: I feel that with some effort if I'm the one who reach these conclusions without someone telling me exactly what to do. They help me think, and I reach a conviction on my own. I become more committed to implementing it and taking it to a higher level than when I discuss it with friends."

Interview 6 - Reviewed2 -

(RM) - Drawing Connections and Links

During the coaching sessions, when I voiced things out loud, I realized that I connect them. This helped me organize my thoughts in a better way in my mind.

Interview 2 - Reviewed -

RM - Replace irrational beliefs and clear thinking errors GUIDED REFLECTION (from CMO2)

Interviewee: Yes, because when you're too occupied by your own thoughts, you usually don't listen to other people. But in coaching, the whole idea is to give someone else a chance to show you another way.

Interview 6 - Reviewed2 -

Ok but th"

"I knew that I had a problem and that I was thinking about it, but I didn't know how to reach a solution or how to deal with it."

Interview 6 - Reviewed2 -

RM - Awareness

Interviewee 2: No, I knew that this was the right thing to do, but I didn't know how to do it.

Interview 7 - Reviewed -

RM - Awareness

Interviewee: I mean, I knew I had these issues, but I didn't know the solution for them.

Interview 5 - Reviewed -

RM - Awareness +TIME

I might have discovered those points on my own during the first session, but I feel that through our discussion, I discovered them more effectively. By that, I mean if I had spent a week thinking about what points I really wanted to work on, those points might have come to mind. Through discussion on working on a different topic I realized the significance of the other points I could have thought of that I needed to work on as well. I felt that the time wasn't sufficient for such a significant point.

Interview 5 - Reviewed -

(O) - Awareness of default mindset

"Interviewee: for me I judge a session by two things, either I came out of this session with a topic or something new for my benefit. So, I started to look at something new I didn't realize before. Or the session was comfortable and I didn't feel any pressure, for instance we're talking and I feel the conversation is smooth and I understand what's being said and I do not feel watched while doing the exercises, so I feel generally good about the session. So, those 4 sessions that I remember were ok. I don't remember the others." Interview 3 - Reviewed -

RM - Awareness

Interviewer: So you judge the session based on two things, first is whether you came with a topic? Tell me more is it like an insight? something to think about? Or something new you learned?

Interviewee: Both. The thing is to discover something that I really did not know which I'll be glad to grasp. Or know if I've been doing something wrong as with the exercise for the alternative thinking. Interview 3 - Reviewed -

RM - Awareness

"Interviewer 1: Okay, did this program, by any means, increase your self-awareness? Interviewee 2: Yeah, in many ways. Interviewer 1: Like what? Interviewee 2: Like the topic of... I can't remember exactly the terminology we used describing "sitting with yourself", it was self....

Interviewer 1: Self-reflection? Interviewee 2: Yeah, self-reflection.

Interviewer 1: And generally, do you consider self-reflection an outcome of this program?

Interviewee 2: Yeah."

Interview 7 - Reviewed -

Examples - identify psychological blocks

I would have always believed that anything that happens is my fault, and it's not on other people. I would overthink and stress over it, and I won't get anywhere. Interview 6 - Reviewed2 -

Examples - identify psychological blocks

I would have still thought that this is not right, I have to please people and I have to do things in a certain way, like 1, 2, 3, it's a must, a must, a must.

Interview 6 - Reviewed2 -

Examples - identify psychological blocks

THERAPY

In one therapy session, basically, the doctor gave me the key to break that pattern of thinking. For example, I stopped worrying about what society says we should do or certain ideas the society is accustomed to. This idea that I should and must follow some rules, I starting setting this aside and began to take another different perspective. That was the key.

Interview 6 - Reviewed2 -

RM - Awareness "Interviewer: You also mentioned that during the program, you discovered two additional goals, did you work on them?"

Interviewee: Yes we did. One of them was fine but the other we didn't have much time for. I felt that if I had thought about those points earlier, I might have concentrated on them more. I discovered them coincidentally during our discussion."

Interview 5 - Reviewed -

RM - Awareness
"It might be because of the discussions, actually. The discussions made us reflect on the problem a bit more, and that's when I started thinking, ""Oh, I also have this other problem.""

Interview 5 - Reviewed -

RM - Awareness
It was helpful. It could open my eyes to a detail that I wasn't aware of Interview 1_ Revised2 -

RM - Awareness
"Were these the goals that you specified at the beginning of the program? In the very beginning you were supposed to determine..."
Interviewee 2: Yes. Interviewer 1: So, these were the three goals for you?

Interviewee 2: They weren't exactly like that, but it turned out that I should reach these goals in order to achieve the other things that I wanted to.

Interviewer 1: So, these goals emerged from the discussions?

Interviewee 2: Yes, I mean, I didn't come to the program saying that my objective is that I can't find time to spend with myself.

Interviewer 1: So You didn't know that.

Interviewee 2: Yes, I didn't know that I needed to spend time with myself. Interviewer 1: Okay.

Interviewee 2: And the other thing, saying no, I didn't know I have troubles with saying no."

Interview 7 - Reviewed -

Examples - Awareness
I also discovered that when it comes to family and friends, I used to exert the effort to satisfy them not me.

Interview 7 - Reviewed -

O - Identify Psychological Blocks

AWARENESS OF INNER CRITICAL VOICE

Interviewee 2: Yes, it happened. I was someone who tend to focus on negativity a bit, even in the process of rating objectives. The conversation made me reflect ~~can go like~~ what's the matter with you? Can't you see you already did many great things, why you don't appreciate/Give yourself credit for the good things that you do. It was always like that. Interview 7 - Reviewed -

I might need to revisit this in translation to make more sense?

Examples - identify psychological blocks

For instance, when I receive a message, I would reply, but now, I'm in a meeting with you, and then someone calls and I have to rush to another meeting and then the day ends with me completely forgetting to reply to the message. I'd remember a few days later but time passed, and if I get back to this person then they'd blame, so I become avoidant.

Interview 7 - Reviewed -

Appendix 16: List of C, M, O codes and refinements

#	Context	Resource Mechanism	Reasoning Mechanism	Proximal Outcome	Distal Outcome
CMO 1	C1 - Introspection	R1 - 1.1(a) Self reflection	RM1 - Awareness of internal dialog (self-talk)	O1 - Identifying psychological blocks	DO1-3.1 (a) Enhanced goal attainment and performance
	C2 - Readiness and motivation to change		RM2 - Increased meta-cognitive skills		DO2- Enhance subjective wellbeing
	rC1 - 1.1 (a) Ready to admit problems	rR1 - 1.1 (a + b) Voicing thoughts out	rRM1 - 1.1 (a + b) + 6.3(a) Targeted self-awareness	rO1 - 1.1 (a + c) identifying one's own psychological block	
	rC2 - 1.1 (a) Willing to share		rRM2 - 1.1 (b) Drawing connections and links	rO2 - 1.1 (b) Organisation of thoughts	
	C3 - Communication	rR2 - 1.1 (c) Divergence in exploration	rRM 3 - 1.1 (c) Reason their thoughts and beliefs	rO3 - 1.1 (b) + 5.2 (b) Clarity	
	C4 - Awareness & Training sessions	rR3 - 1.2(a) Eliciting issues and problems in details	rRM4 - 1.2 (a) Repetitive	rO4 - 1.1 (b) Broadening one's perspective	
	C5 - Assessments and case conceptualization		rRM5 - 1.2 (a) Negative	rO5-1.2(a) + 7.2(b) Demotivation	
	C6 - Building Rapport		rRM6 - 1.2(a) Bored	rO6-1.2(a &b) + 3.1(b) + 9(a) +10 +11(a) + 11(c)Engagement / Disengagement	
	C7 - Building Coaching Alliance	rR4 - 1.2(b) Confrontational techniques	rRM7 - 1.2(b) +1.3(b)+6.2 + 9(a) +9(b) Feel pressured and uncomfortable	rO7- 1.2(b)+ 3.1(b) Resistance	
	C8 - Transparency and Trust	rR5 - 1.3(a) Generate session content through in session exercises	rRM8 - 1.3(a) Solidifying thoughts	rO8- 1.3(a) Easier to recall in future situation	
			rRM 9 - 1.3(b) constrain ability to express	rO9-1.3(b) Forced engagement	

			rRM 10 - 1.3(b) -2.2 -3.1(a & b)-4.1(b) +7.1(b) +7.2(a) relevance and relatability	rO10-1.3(b) relevance and relatability	
		rR6 - 1.3 (c) Room to explain oneself	rRM11 - 1.3(c) feel heard	rO10-1.3(C) Stress reduction	
CMO 2		R2 - self directed mental techniques for emotional management	RM3- Decrease emotional activity and self-regulation	O2- 6.1 +6.3(a) Enhanced self regulation, better use of cognitive resources	
		rR7 - 2.1(a) focus the coachee's attention on their own emotional state	rRM12 - 2.1(a) awareness of how emotional state impacts behaviour	rO11-2.1(a) reduce emotional reactivity	
		rR8 - 2.1(b) explore and reason emotional state	rRM13 - 2.1 (b) further understand and accept their emotions	rO12 - 2.1(b) improved emotional handling	
		rR9 - 2.2 Explain thoroughly how to implement self directed mental techniques + its purpose		rO13 - 2.2 ignoring exercise or incorrect practice	
	rC3 - 2.2 Individual differences	rR10 - 2.2 Trial and Error with self directed mental techniques			
CMO 3		R3 - 3.1(a) Challenge irrational beliefs with cognitive reorientation techniques	RM 4 - 3.2 Replace irrational beliefs and negative thinking	O3 - 3.3 Better decision making skills	
	rC4 - 3.1(a) + 5.2(a) Coach qualification and knowledge	rR11 - 3.1(b) fail to pin down the right issues	RM 5 - 3.2 Engage in positive thinking	O4 - 3.2 positive emotions change	
		rR12 - 3.2 brainstorm on alternative thoughts	RM 6 - Increase in pathway and agency thinking	O5 - 3.2 +6.2 Stress Reduction	
			rRM14 - 3.1(a) Being convinced	O6 - Increase hope	
				O7- 3.2 +6.2 Increase goal striving	

				rO14 - 3.1 (a) Create need to change mindset	
				rO15 - 3.1 (a) Proactively engage in resolving thought inaccuracies	
				rO16 - 3.2 + 1.1(c) More adaptive way of thinking	
CMO 4		R4 - Behavioural Experiments and exposure	RM7- 4.1(a) +6.3(a) Reality testing of replaced beliefs	“Socratic goal setting and achievement”: “[It] is a Socratic, future- focused, collaborative conversation between a coach and the client, during which the coach uses open questions, affirmations, reflective listening, summaries, and information	
	rC5 - 4.1 (a) +6.2 ability to spend time and effort	rR13 - 4.1 (a) Tangible and practical exercise	RM8- 4.2 +6.3(a) Identify performance blocks	rO17-4.1(a + b) Integrate thoughts and behaviours in default mindset	
		rR14 - 4.1(b) Perform quality and feasibility checks	rRM15 - 4.1(b) + 5.1applicability and sense of purpose	rO18- 4.1(a) reinforce behavioural adjustments	
		rR14 - 4.1 (b) - Practice		rO19 - 4.1(b) +5.1 +5.2(a) + 6.3(b) +9(b)Motivation for Action	
				rO20 - 4.1(b) +4.2 Behavioural experiment completion	
CMO 5	rC6 - 5.1 offering professional help	R5 - 5.2(b) SMART goal setting and goal directed action planning	RM9- Facilitating self-regulation by giving indication on acceptable level of performance	O2 Self regulation + O7 goal striving	
	rC7 - 5.1 Having the courage	R6 - 5.1 Create discrepancy between the actual and desired state	rRM16 - 5.2(a) sense of ownership	rO21 - 5.1 Goal Initiation	
	rC8 - 6.2 +9(b)Workload	rR18 - 5.2 (a) Proper case conceptualization	rRM 17 - 5.2(b) sense of competence	rO22 - 5.2 (a) Accurate Goal Setting	
		rR19 - 5.2(a) + 6.1 elevating goal importance	rRM18 - 5.2 (c) sense of reassurance	rO23 - 5.2 (a) +11(c) Commitment	

		rR20 - 5.2(b) defining acceptable levels of performance		rO24 - 5.2 (b) benchmark for feedback and monitoring	
		rR21 - 5.2(c) dynamic goals flexible to change		rO25 - 5.2 (c) accommodating learning and development	
CMO 6		R7 - 6.3 (a) Monitor Progress and constructive feedback	RM10 - 6.2 Plan for relapses and develop maintenance strategies	O9- 6.2Relapse Prevention	
		rR22 - 6.1 + 11(b) Report back thus serves as a reminder	rRM19 - 6.1 Self-monitoring	rO26 - 6.1 self directed behavioural adjustment	
		rR23 - 6.2 Holding coachee accountable	rRM20 - 6.1 +6.3 (a) self evaluation	rO27 - 6.1 progress continuity and consistency	
		rR24 - 6.2 Commitment Renewal and agreement on corrective actions	rRM21 - 6.1 sense of urgency	rO28 - 6.3 (a)constant learning and improvement	
		rR25 - 6.3 (a) Counter argue provided excuse	rRM22 - 6.2 +9(b) + 10 +11(b) sense of commitment, obligation and responsibility	rO29 - 6.3(b) reinforce positive behaviour	
		rR26 - 6.3 (b) Positive Feedback and encouragement	rRM23 - 6.3 (a) reflect on pitfalls and points of improvement		
			rRM24 - 6.3(b) Sense of Accomplishment		
			rRM25 - 6.3(b) Authenticity		
CMO 7		R8 - Evaluate progress	RM11- Develop a solution-seeking methodology		
		rR27 - 7.1 (a) Quantifying Progress and accomplishment reminder	rRM26 - 7.1(a) Realize the extend of one's progress	rO30 - 7.1(a) mitigate negativity bias	
		rR28 - 7.1 (b) highlight evidence of progress	rRM27 - 7.1 (b) +7.2(a) perceived bias	rO31 - 7.1(a) Self Satisfaction	
		rR29 - 7.1 (b) seek coachee's consent	rRM 28 - 7.1(b) View progress as forced	rO32 - 7.1(b) +7.2(a) +7.3 Overall Dissatisfaction/Satisfaction with coaching	

		rR30 - 7.2(a) distinguish between progress evaluation and coaching evaluation	rRM29 - 7.2(a) reluctant to engage or disagree	rO33 - 7.2(a) inaccurate evaluation	
		rR31 - 7.2(b) Broaden self-evaluation scheme	rRM30 - 7.2 (b) avoid self-worth diminishing	rO34 - 7.3 informed decisions on future engagement with coaching	
		rR32 - 7.3 link short term progress with long term plans	rRM31 - 7.3 +8 (a) perceived return on investment and perceived benefit		
Novel CMOs (8-11)	rC11 - 8(b) + 9(b) Work Context	rR33 - 8(a) Introduce program objectives and intentions	rRM32 - 8(a) Comfort	rO35 - 8(a) +10 Buy-In	
	rC9 - 8 (a) Trust in Organisation	rR34 - 8(a) manage employee's expectations	rRM33 - 8(a) Curiosity	rO36 - 8(b) conformity and involuntary participation	
	rC10 - 8 (b) Power dynamics	rR35 - 8(b) Voluntary Participation	rRM34 - 8(a) Excitement	rO37 - 9(a) Accessibility with less effort	
		rR36 - 8(b) Offering professional support	rRM35 - 8(b) Sense of Obligation	rO38 - 9(a) Disengagement/ Engagement	
		rR37 - 9(a) Private Location	rRM36 - 9(a) sense of support, respect and confidentiality	rO38 - 9(b) decreased/increase sense of utility per session	
		rR38 - 9(b) Program Timebound and Number of Sessions	rRM37 - 9(b) Perceived as well paced	rO41 - 10 commitment	
	rC12 - 10 managerial support	rR39 -10 Communication and acquire managerial support	rRM38 - 10 Perceived managerial support	rO39 - 10 +11(c) program acceptance	
		rR40 - 11(a) Aligning program objectives and work related objectives	rRM39 - 10 sense of significance and credibility	rO40 - 11(b) Coachee's empowerment to take ownership	
		rR41 - 11(b) Checkpoints post coaching program	rRM40 - 10 +11(c) sense of collectiveness		
		rR42 - 11(c) Integrate program in org policies and systems	rRM41 - 11(a) +11(c) sense of importance		

