Appendixes

Appendix 1

Table underpinning the Methods Section

1 – Clarifying the study scope & foundational frameworks		
Problem Identification Stage	Clarity of the review purpose is essential to provide focus and boundaries, thus important to extract appropriate data from primary sources. More integrative reviews should be carried out from an explicit philosophical or theoretical perspective, focusing a review within a broad and diverse sampling frame.	Integrative review
Clarify the scope	Define, refine and redefining: a major stage for application of back-and-forth-process going from exploration to refinement.	Realist review
Identifying the Research Question	Clear purpose and a well-defined research question provide a clear rationale for completing the study and facilitate decision-making about study selection and data extraction.	Scoping review
Familiarization & Identifying a thematic framework	Immersion in the raw data (or typically a pragmatic selection from the data) in order to list key ideas and recurrent themes. A priori identifying frameworks and key issues, concepts, and themes by which the data can be examined and referenced, according to the study purpose.	Framework synthesis
2 - Search Process (by themes)		
Literature Search	A comprehensive starting search requires more than one single strategy (e.g. database, references lists). Purposive sampling can be combined with comprehensive search. It can be used differently for different sub-themes.	Integrative review
Search for Evidence	Progressive in depth and breadth: from background search to get a feel of the literature to a progressive focusing, and a final search once the synthesis is almost complete. Purposive sampling: aiming to retrieve materials purposively to specific subjects. Saturation principle for stop-looking new references (because there is infinite number of papers that could be applied): saturation defined when assembled evidence is satisfactory – iterative process by asking for each subject if more literature search can add knowledge, perspectives, evidence or understanding not yet uncovered by actually retrieved information. Interactive search strategies and terms: using multiple combinations that evolves as understanding grows. Snowballing (references of references; citation-tracking databases; related-content databases) is likely to be much more fruitful than putting specific words on 'PubMed'.	Realist review
Identify Relevant Studies	Multiple sources as databases and references lists, with an iterative search strategy. Feasibility is important, but it cannot compromise the ability of research questions become answered.	Scoping review

	Limiting the scope is unavoidable, but justification of decisions must be provided such as limitations acknowledged.	
3 – Selection process		
Data Evaluation Stage	Selection decisions are made accordingly to the review purpose in a meaningful way. Methodological differentiation can be used mostly for discrepant findings on a same subject.	Integrative review
Appraising the Quality of Evidence	Whether using or not appraisal checklists, quality assurance are dependent on the subjective dimension and reflexivity of the person(s) undertaking the review. Cut directly to judgment: balance among relevance and rigor as dimensions of fitness for specific review parts. The worth of studies is established in synthesis and not as a pre-qualification exercise.	Realist review
Study selection	Study selection involves a *post hoc* inclusion and exclusion criteria. These criteria are based on the research question a new familiarity with the subject matter through reading the studies in an iterative process.	Scoping review
4- Extraction & Display (by themes)		
Data reduction & (thematic) display	Extraction and reduction of data into a manageable framework. Converting the extracted data from individual sources into a single display that assembles the data from multiple primary sources. Data display is made around particular variables, themes or subgroups.	Integrative review
Extract data & 'free-text display'	Marking relevant sentences with a highlighter pen and worth noting. Display is preferably made as free-text annotation/short-verbal key features, despite grids or matrix can be used. Display of the information context.	Realist review
'Extracting' & 'Charting information'	Contextual and process-oriented information is also extracted. Data charting is often the method used to display study data. There is an overlap with the next synthesis stage.	Scoping review
Indexing to an *a priori* framework	Annotating the transcripts with numerical codes from the index, based on the thematic framework. A same message can encompass different themes, each of which has to be displayed and compared with information on the same topic.	Framework synthesis
5- Analysis and Synthesis (by themes)		
	Progressive synthesis of patterns, themes and relationships coming	Integrative

Data Comparison & 'Thematic Synthesis' (iterative)	from iterative data comparison. Iterative data comparison with critical appraisal and creativity in examining data displays in order to identify patterns, themes or relationships. Avoid exclusion of newly found pertinent evidence due premature synthesis closure, with 'verification' of the adequacy of information sources.	review
Synthesizing the evidence (iterative)	Progressive ideas shaping: synthesizing evidence evolves from divergent to convergent thinking; as evidence and theory gains clarity to the author. The synthesis ends, hopefully, with a refined theory and refined understanding of the intricacies of the factors underpinning and undermining a complex intervention through a chain of implementation effects.	Realist review
Collating and summarizing	Provide a numerical overview and analysis of the breadth and depth of the literature using tables or charts. Qualitative analyses techniques can be used for the analytical and synthetic process.	Scoping review
Charting and Mapping	Rearranging the data according to the appropriate part of the thematic framework to which they relate. Forming charts that involve a considerable amount of summarization, synthesis and abstraction. Using the summarized charts to define and synthesize concepts Map the range and nature of phenomena, create typologies and find associations between themes.	Framework synthesis
6- Interpretation/ Conclusions		
'Iterative' Conclusion drawing	Conclusion drawing requires an interpretative effort that moves from a descriptive synthesis of patterns and relationships towards higher levels of abstraction and generalization. Conclusions drawing or conceptual models developed are continuously revised in order to be inclusive of as much information as possible and desired.	Integrative review
Drawing conclusions	Conclusions must highlight a refined theory for the complex factors influencing the implementation of an intervention. Conclusions might be expressed in a way that enlightens policy-decision.	Realist review
Reporting & 'applying meaning to the results'	Report the final product can be made by themes (thematic synthesis), a framework, or a table of strengths and gap in the evidence. Meanings should be tied to the purpose of the study developed in	Scoping review

	stage one.	
Interpretation	The process of interpretation is influenced by the original research objectives as well as by the themes that have emerged from the data themselves. Interpretation aims to provide a view to explanations for the findings and association between themes.	Framework synthesis
7 - Expert Consultation		
Consultation (optional)	Provides opportunities for consumer and stakeholder involvement to suggest additional references and provide insights beyond those in the literature. Purpose for consultation must be clearly established. It may include sharing preliminary findings for feedback, further validation and refinement. Experts and stakeholders would provide meaning, context expertise and perspective on the preliminary findings.	Scoping review

INTEGRATIVE RECOMMENDATIONS		
'Integrative Implications'	A final step is the synthesis of important elements or conclusions of each subgroup into an integrated summation and synthesis of the phenomenon that contributes to a new integrative understanding. There is an emphasis in presentation of integrated implications for practice, policy and research.	Integrative review
Framing recommendations	Making tentative recommendations for policy-decision. Recommendations are made with the cautions and contextualized grammar of policy discourse rather than universal and irrefutable scientific truths or 'one size fits all' solutions. There is room for debate about the precise scope of policy implications of a realist review. Highlight pragmatic considerations and possible caveats that shall be addressed or otherwise could undermine the effectiveness of implementation chains.	Realist review

Appendix 2

European Doctorate 3-month research stage:

Contract & Evaluation