Remediation programmes for practising doctors to restore patient safety: the RESTORE realist review

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Scientific summary

The RESTORE realist review

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Scientific summary

Background

Estimates show that, at any one time, 18,000 doctors in England are performing below the standards that are expected of them. If a doctor is underperforming, patients are being put at risk. Remediation is an intervention intended to address underperformance and return a doctor to safe practice. Used in health-care systems all over the world, the successful remediation of doctors has a direct impact on patient safety and also on the retention of doctors in the workforce. There is currently a significant shortage of doctors in the UK. It costs the taxpayer, on average, approximately £500,000 to train a single doctor and, therefore, it is crucial that doctors be given the additional support they need to bring their performance back up to the standards expected of them. Without remediation, expensively trained individuals could be lost from the workforce. However, it is widely recognised that we do not know enough about if and how different remediation programmes work and, particularly, in what contexts. This could result in remediation being conducted ineffectively, wasting the taxpayer's and doctor's time and resources, and potentially continuing to put patients at risk.

Aim and objectives

The REalist SynThesis of dOctor REmediation (RESTORE) review aimed to identify why, how, in what contexts, for whom and to what extent remediation interventions work for practising doctors to restore patient safety. The review was structured around the following objectives:

- To conduct a realist review of the literature to ascertain why, how, in what contexts, for whom and to what extent remediation programmes for practising doctors work to restore patient safety.
- To provide recommendations on tailoring, implementation and design strategies to improve remediation interventions for doctors.

Review questions

- What are the mechanisms by which remediation interventions work to change the behaviour of practising doctors to produce their intended outcomes?
- What are the contexts that determine if remediation interventions produce their intended or unintended outcomes?
- In what circumstances are these remediation interventions likely to be effective?

Methods

To account for the context in which remediation interventions are implemented, we followed a realist approach to evidence synthesis. Realist review is a theory-orientated and explanatory approach

to the synthesis of evidence, which seeks to develop programme theories about how an intervention produces its effects. Its foremost strength comes from providing transferable findings that explain how and why context can influence outcomes. Remediation activities take place in a range of contexts (e.g. who delivers the intervention and how it is delivered, the characteristics of the remediating doctors, the circumstances surrounding the performance issue, and the tools and techniques utilised), some of which may affect the outcomes. The review followed a detailed protocol based on Pawson's five iterative stages for realist reviews: (1) locating existing theories, (2) searching for evidence, (3) selecting articles, (4) extracting and organising data, and (5) synthesising the evidence and drawing conclusions (Pawson R. Evidence-based policy: the promise of 'realist synthesis'. *Evaluation* 2002;**8**).

Data sources

We carried out a formal literature search of databases that index medical and education literature. The following databases were searched: MEDLINE, EMBASE, PsycINFO, Health Management Information Consortium, Cumulative Index to Nursing and Allied Health Literature, Education Resources Information Center, Applied Social Sciences Index and Abstracts, and Database of Abstracts of Reviews of Effects. These searches were performed in June 2018. We carried out a grey literature search of Google Scholar (Google Inc., Mountain View, CA, USA), OpenGrey, NHS England, North Grey Literature Collection, National Institute for Health and Care Evidence, Electronic Theses Online Service, Health Systems Evidence and Turning Research into Practice. These searches were performed in June 2019. We searched the bibliographies of included articles and we asked the core research team and stakeholder group to identify relevant literature. We also conducted purposive supplementary searches using Google Scholar to search for particular aspects of the emerging programme theory (e.g. insight, motivation, dissonance, psychological safety, self-efficacy and behaviour change).

Study selection

We applied the following inclusion criteria to the literature identified from the main search of databases, citation searching and grey literature search:

- aspect of remediation (including all documents that focus on the remediation of practising doctors)
- study design (including all study designs)
- types of setting (including all documents about primary or secondary care settings)
- types of participant (including all practising doctors in primary and secondary care)
- outcome measures (including all remediation-related outcome measures)
- language (including studies published in the English language)
- publication date (including all studies published up until July 2018).

For the supplementary searches, articles were included that helped clarify aspects of the programme theory.

Articles were selected for inclusion based on relevance. This process was assisted by the use of the software Rayyan QCRI [Qatar Computing Research Institute (Data Analytics), Doha, Qatar].

Data extraction

The analysis was underpinned by a realist logic. We sought to identify, interpret and explain mechanisms on how the remediation of doctors produces its effects and to identify relevant contexts or circumstances when these mechanisms were likely to be 'triggered'.

Analysis and synthesis

The initial programme theory set out to explain what it is about remediation of doctors that works and for whom, in what circumstances and in what respect, and why. This was iteratively developed, confirmed, refuted or refined, using data from included articles, into a realist programme theory. A realist logic of analysis was used to build the causal explanations within the programme theory.

In addition, interpretive cross-case comparison was used to understand and explain how and why actual outcomes happened. The following analytical approaches were used:

- juxtaposition of sources of evidence (i.e. where evidence about behaviour change in one source allows insights into evidence about outcomes in another source)
- reconciling of sources of evidence (e.g. when results differ in similar situations, these were further examined to find explanations for these differences)
- consolidation of sources of evidence (i.e. where different outcomes occur in similar contexts, reasons can be developed as to how and why these outcomes happen differently).

Throughout the review, we moved iteratively between the analysis of examples, refinement of programme theory and further iterative searching for data to test specific parts of the programme theory. The final realist programme theory is presented in a diagram and through a narrative description of context–mechanism–outcome configurations.

As mechanisms were often hidden or not articulated very well, we used retroductive reasoning to infer and elaborate on the mechanisms. Retroductive reasoning is an analytical process that seeks to identify the hidden causal processes that lie beneath identified patterns or changes in those patterns. Therefore, our approach involved repeatedly going from data to theory to refine explanations about the occurrence of certain behaviours. We tried to construct these explanations at a level of abstraction that would encompass a range of phenomena or patterns of behaviour.

We identified relationships between contexts, mechanisms and outcomes within individual studies, and also across different sources (i.e. inferred mechanisms from one study could help explain the way contexts influenced outcomes in another study). The synthesis of data from different sources was often required to compile context–mechanism–outcome configurations, as not all parts of the configurations were always present in the same source.

Consistency checks

Consistency checks were carried out by a second reviewer on a 10% random sample of the screening and the coding process for both of the main searches. Very few inconsistencies were identified and, when identified, these were resolved through discussion.

Stakeholder group

A diverse stakeholder group was recruited to provide subject knowledge for programme theory refinement, to optimise dissemination plans and to aid the generation of feasible and practical recommendations. The group included doctors who have undergone a remediation programme, personnel who identify underperforming doctors and initiate involvement in remediation programmes, personnel involved in the delivery of remediation programmes, responsible officers, remediation coaches, researchers involved in research on remediation, patient and public representatives, and members of relevant medical bodies.

Results

Of the screened 4554 records identified by the main search, 114 articles met the inclusion criteria and were included in the study. A further 27 articles were identified through additional searches. Of the 141 studies, 64% related to North America, with 14% coming from the UK. Seventy-two per cent of studies were published between 2008 and 2018. Forty per cent of articles were commentaries, 37% were research papers and 31% were case studies. Forty per cent of articles focused on remediating all areas of clinical practice, 27% focused on professionalism and 19% focused on knowledge and/or clinical skills. Thirty-two per cent of articles described a remediation intervention, 16% outlined remediation strategies and 11% presented a remediation model.

Our realist analysis developed and refined 29 context–mechanism–outcome configurations. Remediation programmes work when they develop practitioner insight and motivation, and reinforce behaviour change. Key contexts that had an impact on the effectiveness of remediation interventions were identified at the individual level, including the stage in a doctor's career, negative emotions, distrust of remediation processes, fear of remediation consequences and professional identity development. Important contexts at the setting level included workplace environment and the stigma of remediation.

Insight

Strategies such as providing safe spaces and using advocacy to develop trust in the remediation process can trigger the psychological safety mechanism, which can result in doctors being ready to explore perceptions of their performance and develop insight (context–mechanism–outcome configurations 1–4). Carefully framing feedback creates contexts in which the mechanisms of professional dissonance, affirmation and normative enticement can result in doctors accepting the need to change and develop insight (context–mechanism–outcome configurations 5–13).

Motivation

Involving the remediating doctor in remediation planning, correcting causal attribution and goal-setting help to develop intrinsic motivation to change doctors' behaviour through mechanisms of perceived sense of control, normative rejection and self-efficacy (context–mechanism–outcome configurations 14–19). Destigmatising remediation can help trigger the mechanism of psychological safety and protect against the mechanisms of alienation from peers and normative rejection (context–mechanism–outcome configurations 20–22). Extrinsic motivation to engage with the remediation process is promoted through doctors being able to evaluate the costs and benefits of change (context–mechanism–outcome configuration 23).

Behaviour and/or performance improves

Sustained change and improvement in behaviour and/or performance is achieved through repetition and practising of new skills, and the integration of new knowledge and experiences into doctors' learning through guided reflection (context–mechanism–outcome configurations 24–29).

Conclusions

Remediation can work when it creates environments that trigger behaviour change mechanisms. The existing literature, combined with supplementary searches and the incorporation of substantive theories, has enabled us to identify the mechanisms at work in remediation programmes. The study was limited, to some extent, by the quality and quantity of existing literature, and more primary research is needed.

Recommendations

Tailoring remediation interventions should focus on the following areas:

- Remediating doctors should have the opportunity for confidential discussion with someone in a supportive role.
- Remediation programmes for issues related to conduct should include an opportunity for remediating doctors to reflect on their own professional values and contrast these with the feedback they receive on their own behaviours.
- Remediating doctors should be supported by someone who has the role of advocate. This individual may be a coach or mentor and should not have a role in making summative judgements throughout the remediation programme.
- Remediating doctors should be provided with specific feedback that details the reasons and provides examples of underperformance or poor conduct. If the feedback relates to behaviour, it should detail specific events (including a date and time). This feedback should ideally come from more than one source and include feedback from patients whenever possible. Feedback will be needed throughout the remediation process, not just at the beginning. The appropriate feedback to determine progress, and the way that it is delivered, should be ascertained in the remediation planning stage.

- Feedback may be more effective when discussed in person and should be guided by someone who has been trained to deliver feedback. The feedback should be framed in such a way that it relates to the professional values of the doctor, should be presented in a way that appears manageable and should affirm any identified strengths.
- Multimodal assessment should be used to explore a full range of potential issues, including behavioural issues, even when the identified problem may appear to relate to knowledge and skills. Assessment should also be used to determine any organisational issues that may contribute to poor performance or behaviour. If there are problems with the work environment, then remediation may need to be conducted elsewhere.
- Remediation programmes should offer the opportunity for the remediating doctor to reflect on the reasons for their referral and identify the triggers for underperformance/poor conduct.
- Where possible, remediating doctors should collaborate in the design of the individualised remediation plan and help to shape it. The planning stage should include setting scheduled points for assessing progress and determining what kind of feedback will be appropriate for the assessment of this progress.
- Remediation programmes should include an individualised plan that specifies the milestones, points for review of progress and the consequences of achieving or not achieving targets.
- The remediating doctor should collaborate in the process of goal-setting and the goals set should be achievable and measurable.
- Remediation programmes should seek to destigmatise the process of undergoing remediation and frame it, as far as possible, in terms of positive professional development. If relevant, remediation programmes could consider changing the name from remediation to professional support or similar.
- Where appropriate, remediation programmes should offer an opportunity for remediating doctors to practise any new skills or behaviours they have developed. This may include rehearsing new behaviours in simulated settings. When this is not possible, guided reflection can offer an opportunity to reflect on practice in situ.
- Remediation programmes should have scheduled points for reviewing progress with the remediating doctor. The remediating doctor should be involved in this process of review, and reflections should be guided so that the remediating doctor continues to gain insight into their progress.
- Reflection should be built into the remediation programme and should be guided, but not form part of a final judgement on progress. Reflection may include one-to-one discussion of feedback or discussions of entries in reflective logs. The purpose of reflection is to have an interesting and meaningful conversation to embed new knowledge and behaviours, and engender further insight.
- Recent medico legal cases may have placed uncertainty over the confidentiality of reflective logs. The exact legal status of any written reflections should be established in advance.

Future research

Our review has revealed why remediation programmes work in some contexts and not others; however, there is a need for a better understanding of the specific contexts that are relevant to real-world NHS settings. Future research should focus on optimising the delivery of remediation programmes for doctors in the NHS through the implementation and evaluation of our recommendations. Participatory co-design methods and realist evaluation would be useful methodologies to address this research area.

Study registration

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