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A scoping review characterising the activities and landscape around implementing NICE guidance

Executive Summary

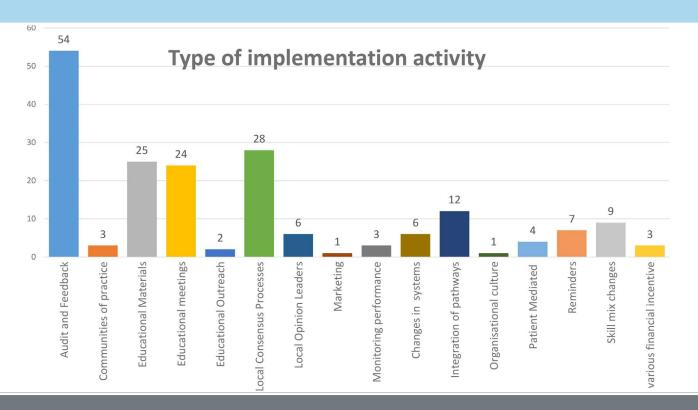Type of implementation activity

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1. Rationale

NICE guidance provides evidence-based recommendations on how professionals and commissioners working within these fields should care for patients, service users and the wider public. Evidence-based clinical guidance aims to reduce variation in practice and improve levels of patient and service user care, while at the same time allowing clinical freedom for individual practitioners [1]. The guidance produced by the National Institute for Health and Care Excellence (NICE) are not mandatory, although NICE does set out a business case in terms of the clinical and cost-effectiveness for implementation. Implementation in this sense, signifies the active planned processes that take place to enable guidance-based best practice to become routinely embedded within day-to-day activity [2].

There is growing recognition that getting evidence to influence and change practice is a complex undertaking. Local variation in epidemiological and social needs, as well as the supporting structures, may mean that different aims are prioritised and guidance may need to be interpreted and tailored accordingly. Despite a growth in the evidence base in this area, there remain gaps in understanding which types of implementation strategies are most effective for which types of guidance, for which audiences and in which circumstances.

2. Approach

This executive summary reports on the results of a scoping review of published literature characterising the processes, activities and implementation interventions that aim to embed NICE guidance within decision-making and practice, with a focus on national level activity. The scoping review was supplemented by targeted web searching (see main report of details of methods and strengths and limitations). The scoping review provides a review of published evidence from intervention and observational studies, whereas the web searches aim to characterise a broader range of interventions and activities, many of which have not been researched or evaluated. This scoping review differs from previous evidence reviews for NICE [3], through focussing on the implementation of NICE guidance specifically, although we refer to the broader literature to contextualise some of our findings.
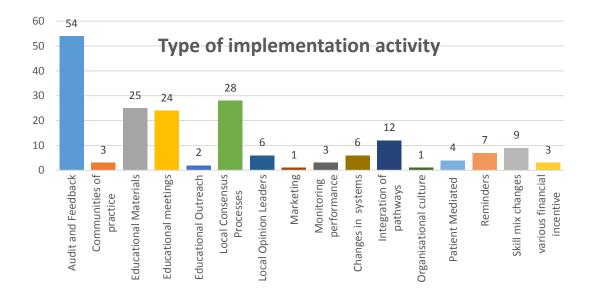
3. Summary of findings

We screened over 4,300 records and identified 87 research studies (both observational and intervention studies) that were focussed on the implementation of NICE guidance in practice and meeting our inclusion criteria. To ensure that broader learning around guidance implementation was not missed, further searching of systematic reviews (particularly those published by the Cochrane Effective Practice and Organisation of Care (EPOC) review groups) also took place[1]. We also undertook detailed and systematic web searching among almost sixty national organisations.

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[1] No additional trials or interventions focussed specifically on the implementation of NICE guidance were uncovered through these.

3.1 Headline trends on the literature on implementing NICE guidance

Studies examining national strategies or processes were in the minority, accounting for 21% of the 87 studies identified. In contrast studies that examined local practices and implementation interventions were much more common with 37% of studies examining implementation within single institutions. Venous thromboembolism and mental health guidance are the most frequent foci of studies aiming to understand and improve implementation processes.

	Headline trends from previous reviews of (all) guidance implementation	Trends from the current study on NICE specific literature and web searching of key stakeholders
Overall body of evidence	Large literature but comparatively few evaluated interventions and high quality RCTs	Several activities being undertaken. Comparatively few evaluated interventions and high quality RCTs. Much activity in promotion/embedding among key stakeholders. Active implementation measures most likely to include audit and feedback.
Clinical guidance	Volume of studies focussed on the implementation of clinical guidance	Volume of studies focussed on the implementation of clinical guidance
Public Health guidance	Few studies uncovered	Few studies uncovered
Social Care guidance	Few studies uncovered	Few studies uncovered
Scale and national level vs local level implementation initiatives	Scale not addressed explicitly in implementation literature. Tension discussed in the literature between national imperatives and local tailoring. Elements of freedom and flexibility suggest local approach more appropriate for many modes.	Greater volume of activity recorded locally than nationally. Some implementation activities may be better suited to national approach e.g. e-learning, accreditation and creating national communities of best practice. Other approaches may be less feasible.

Type of implementation activity

3.2 Frequently occurring implementation modes

	Headline trends from previous reviews of (all) guidance implementation	Comments on NICE specific literature and web searching of key stakeholders
Audit and Feedback	Frequently deployed in implementation literature and often found to be effective.	Well represented and took place nationally, regionally and locally. Studies not reporting feedback mechanisms excluded as reporting compliance/uptake trends only. Often used in combination with other methods. Less than a third (16/54 studies) provide theoretical basis for audit model or subsequent quality improvement actions. 32/42 studies with information on impact suggest improvements across all indicators of interest. Web searches found that supporting and conducting audit and feedback was the most frequent form of bespoke (intervening) initiative that national stakeholders were undertaking.
Educational Materials	Most frequently deployed in the literature. Lack of clarity on impact but thought to be less impactful than more intense educational modes.	One of the most frequently deployed methods. Feasible across local to national scales. This confirmed in supplementary web searching. However, impact on implementation is poorly understood as often deployed alongside other modes.
Educational meetings	Frequently deployed in the literature. Thought to be more impactful than less intense educational modes.	Frequently deployed as a means of implementing NICE guidance. Often used alongside audit and feedback and little to distinguish feedback meetings and educational meetings following audit. Impact of educational meetings unclear, although do form part of successful multicomponent interventions. Nationally, educational meetings tend to take place alongside national audits.
Consensus Processes (incl. pro-forma)	Empirical uncertainty as whether consensus processes are impactful although theory to support consensus process as effective	Frequently deployed in studies on implementing NICE guidance. Disproportionately fewer examples of consensus processes occurring nationally than locally, but examples of consensus processes occurring in the translation of guidance to reflect clinical episodes happening at a national level.

Activities being undertaken by national stakeholders

Awareness raising: Publicising, disseminating, endorsing guidance	Many national stakeholders profiled engaged in these activities. Includes endorsements of NICE guidance through statements and letters, expert commentaries, publicising, and signposting of guidance. May have an impact on implementation, helping to embed the guidance in professional culture, publically demonstrating support and providing an explanation of how the guidance with national professional priorities, and helping to add methodological credence to the guidance themselves, particularly when the endorsement is published in journal articles.
Bespoke (intervening) implementation activities	In addition to audit and feedback (above), several national stakeholders undertook initiatives that aimed to implement NICE guidance through patient information and education.
Embedding in the organisation's broader initiatives	Organisations were undertaking a diverse set of activities; NICE guidance found to be embedded in professional regulation arrangements and service regulation arrangements across organisations.

3.3 Potential green shoots for national/local deployment

A cross-cutting theme was that national level activities provided a catalyst for improved organisational management processes facilitating the implementation of guidance. National level activities could also stimulate conversations to occur between clinical staff and managers that may not ordinarily occur.

	Headline trends from previous reviews of (all) guidance implementation	Comments on NICE specific literature*
Communities of practice	Not a large literature examining effectiveness but suggestive of positive impact on guidance implementation	Few studies uncovered, although promising impact and processes observed. Can be considered a scalable method of implementation: national communities of best practice were created in different ways across the studies including through introducing an accreditation system, through developing online fora supported by less frequent face-to-face encounters, and through more purposive means through enabling low level implementers to learn from organisations with high levels of implementation. National level initiatives have the potential to create large scale communities of practice and improvement networks, as well as to spur the development of more localised initiatives. Strategic Clinical Networks, Academic Health Science Networks, NIHR Collaborations for Leadership in Applied Health Research and Care, and several of the Royal Colleges (notably the Royal College of Psychiatrists) actively engaged in activities that were essentially mobilising communities of practice aimed at improving patient care, with implementation of NICE guidance an underlying theme.
Educational Outreach Visits/Meetings**	Highly impactful but can be costly	Self-defined educational outreach meetings rarely implemented but promising results from two studies on NICE guidance. Unlikely to be suitable as a nationally directed <u>standardised</u> mode of activity but local activities could be supported nationally e.g. through facilitating partnership working.
Integration (or changes) of services/pathways (as intervention)	Few studies uncovered	Development of 'Improving Access to Psychological Therapies' taken as an intervention involving the integration (or changes) of services/pathways to implement NICE guidance; this is a national programme supported by the allocation of sufficient resources including for training and delivery, a roll out plan, and the development of a stepped care model. IAPT provides valuable learning for large scale and well-funded projects aimed at increasing implementation, and particularly those that necessitate cooperation across agencies.
Organisational culture	Rarely encountered in the literature. Recent systematic review uncovered no studies.	We classified one study as aiming to change organisational culture through an accreditation programme; reported promising results with regards to processes observed in implementation.

**see caveats in main report around defining educational outreach

4. Research recommendations

There is no failsafe mechanism or activity around implementation of guidance, and while there exists a large body of literature in this arena, there remain a number of gaps in the literature, which are translated here into the key research priorities below.

Research Question 1	How do we stimulate leaders, managers and commissioners to engage with guidance implementation?
Potential Method	Survey of membership organisations aiming to establish levels of awareness, knowledge, acceptance and supportive behaviours in the implementation of NICE guidance. This focus could also help to engage national stakeholders currently not active in this field.
Rationale	Corporate commitment is linked to many key implementation markers and where it is lacking, implementation will not be very far advanced [4]. Despite the importance of management and leadership, there is little focus on this aspect in the literature.

Research Question 2	How does the process of implementing NICE guidance affect systems of delivering care to patients/service users?
Potential Method	Aiming to establish the range of stakeholders involved in implementing NICE guidance within organisations. Organisational case studies incorporating documentary research, including examinations of internal policy documents and strategies, and repeated interviews with different stakeholders over a period of implementing NICE guidance.
Rationale	There is a need for further research into how the implementation of guidance impacts upon systems and individual actors within those systems. Such an approach should build upon some of the qualitative studies included in this review, for example [5], and extend these findings to develop theories of how guidance implementation is both an activity conducted by individuals and the systems and contexts in which they operate.

Research Question 3	What value could extending accreditation (for organisations and/or practitioners) to cover implementation bring?
Potential Method	Potential methods could include a scoping review focussed on different forms of accreditation which are linked to guidance, and the benefits and challenges of administering accreditation systems, with further stakeholder interviews on the feasibility, the ethics and the rationale for such a system.
Rationale	One study provided some indicative evidence on the benefits that accreditation could bring in increasing implementation and in raising levels of patient care. NICE already supports an accreditation system for the production of guidance by other organisations; this research could explore the feasibility of extending this process.

Research Question 4	Do practitioner-led and externally-led implementation activities have different impacts on guidance implementation – exploring the impacts of communities of practice compared to educational outreach meetings.
Potential Method	A cluster (e.g. CCG, Trust or Local Authority) randomised controlled trial to establish effectiveness and comparative effectiveness (compared to control conditions). An RCT is a particularly valuable approach in implementation research as across the body of evidence as a whole, selection effects are likely to have considerable impact. Alongside the RCT, a process evaluation should be conducted examining implementation and adjunct processes.
Rationale	Both educational outreach meetings and communities of practice were deemed to be effective strategies. However, it is unclear whether a more prescriptive model, as is the case for educational outreach meetings, is more effective than a more organic and practitioner-led model.

Research Question 5	What are the impacts of e-learning on levels of guidance implementation?
Potential Method	A cluster (e.g. CCG, Trust or Local Authority) randomised controlled trial to establish effectiveness. Such a trial could be conducted across a variety of settings to understand whether e-learning is a more suitable option in some settings, for example social care settings, than others. As was the case above, a process evaluation should be conducted alongside an RCT to help to identify facilitators and barriers to effectiveness and implementation.
Rationale	E-learning was viewed as easily implementable at a national level. However, there was a dearth of research exploring changes in implementation behaviour directly. The interest in e-learning follows its relatively low cost to implement and its potential to be developed across the suite of NICE guidance.

Research Question 6	What are the characteristics of audit and feedback that are associated with increased guidance implementation across clinical, public health and social care settings?
Method	This research would aim to build on the tentative findings in the current scoping review through conducting a focussed systematic review with a broader focus than on NICE guidance alone (in order to better capture trends in public health and social care)
Rationale	This activity would build on the findings of the current review through including a sub question exploring whether the absence of theory and rationale in audit and feedback equate to a lower impact on implementation. There is a need to understand how audit and feedback improve levels of implementation outside clinical settings and establish impact mechanisms.

Research Question 7	What is the impact of NICE's own implementation activities?
Method	Methods would be appropriate to the type of implementation activity being evaluated. For example, a cluster randomised trial might be carried out to evaluate the impact of new implementation tools which have not yet been disseminated (as described above for e-learning); and for the external support given by the Field team and the Adoption team (as described above for externally led support) which could be considered forms of 'educational outreach'. These would be accompanied by a longitudinal qualitative research study assessing mechanisms of change and the acceptability and accessibility of these activities.
Rationale	This reflects the gap in published evaluations of NICE's own implementation resources and tools.

1.   Keenan D, Abraham S. Conclusion and reflections. In: Leng G, Moore V, Abraham S, editors. Achieving High Quality Care: Practical Experience from NICE2014. p. 91-101.
2.   Whitby E, Royce J. Key challenges to implementation and effective interventions. In: Leng G, Moore V, Abraham S, editors. Achieving High Quality Care: Practical Experience from NICE2014. p. 45-61.
3.   Robertson R, Jochelson K. Interventions that change clinician behaviour: mapping the literature. National Institute of Clinical Excellence (NICE). 2006.
4.   Mears A, Kendall T, Strathdee G, Sinfield R, Aldridge I. Progress on NICE guideline implementation in mental health trusts: meta-analyses. The Psychiatrist. 2008;32(10):383-7.
5.   Llewellyn S, Procter R, Harvey G, Maniatopoulos G, Boyd A. Facilitating technology adoption in the NHS: negotiating the organisational and policy context–a qualitative study. Southampton: NIHR, 2014.

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