FIRE Report Summary

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Final Report Summary - FIRE (Facilitating Implementation of Research Evidence)

Executive Summary:
Facilitating Implementation of Research Evidence (FIRE)
Background: Research evidence is not always used to ensure best practice in healthcare. This study used the Promoting Action of Research Implementation in Health Services (PARIHS) framework which argues that the nature of the evidence, the context in which it is used, and the extent of facilitation (or help) that people have to use the evidence all effect whether it is used in practice.
Aims: The study aimed to extend knowledge of facilitation as a process for getting research evidence into practice by evaluating the contribution two different models of facilitation can make to implementing evidence based urinary continence recommendations into practice.
Methods: The study took place in four European countries, aiming for six long term nursing care sites in each country (total 24 sites) involving people aged 60 years or more with documented urinary incontinence. An internal facilitator was nominated in each intervention site to work with external facilitators to implement the urinary incontinence (UI) recommendations. The design of the study was a pragmatic clustered randomised controlled trial with embedded process and economic evaluation. Long term care settings were randomly allocated to one of three arms (standard dissemination, and two different facilitation interventions), using a centralised randomisation point to ensure allocation concealment. The primary outcome was documented compliance score (or percentage compliance) with the continence recommendations. Secondary outcomes included proportion of residents with incontinence, incidence of incontinence related dermatitis, urinary tract infections and quality of life. These outcomes were assessed at baseline, then at 6, 12, 18 and 24 months after the intervention. Data about the context were collected throughout, using interviews with staff, residents, next of kin and key stakeholders. Observations of care, observations of facilitation, assessment of context (using the Alberta Context Tool) and documentary evidence were collected.
Findings: Quantitative data was available for n=430 residents at baseline, n=462 at +6 months, n=497 at +12 months, n=479 at +18 months and n= 445 at +24 months after the intervention. Total number of records reviewed across all time points n=2313. Qualitative data included 332 hours 25 minutes of observations of care; 39 hours of observation of facilitation activity; 471 staff interviews; 174 resident interviews; 120 next of kin/carer interviews; and 125 stakeholder interviews across all four countries.
There was no significant difference between study arms and all study arms improved on the primary outcome (documented compliance with continence recommendations) over time in all countries. When comparing baseline to 24 months after the intervention, for recommendation three (having an individualised treatment plan in place), the two facilitation arms, but not the control arm, both improved significantly on including individualised goals of care and documenting progress against those goals. With secondary outcomes, both facilitation arms, but not the control group, had significantly better documentation of i) the level of cognitive impairment, ii) depression and iii) incontinence associated dermatitis between baseline and 24 months. The qualitative findings show that the role of evidence was uncontested, but that the facilitation interventions' potential to overcome contextual issues was partial. Data show the effect of facilitation was mediated by contextual characteristics and internal facilitator characteristics. The context characteristics included resources, knowledge and understanding of urinary incontinence, availability of staff, stability of practice environment, values and beliefs, starting point of the long term care setting, physical environment, leadership style and support. The internal facilitator characteristics included resilience, knowledge and understanding, values and beliefs, starting point and personal and formal authority.
Conclusion: There was no significant difference between study arms; all study arms improved on the primary outcome (documented compliance with continence recommendations) over time in all countries. The 12 month Type A and the 24 month Type B intervention programmes did not have different levels of impact on compliance. It was thus not possible to identify a "good enough" model of facilitation within highly varied contextual conditions. It seemed contextual issues were particularly dominant and were not always overcome by facilitation activities. The implementation of the facilitation approaches appeared to be mediated by characteristics of both the setting and the internal facilitator, by the level of engagement of both the site and the internal facilitator, and by prioritisation of the FIRE study by the long term care settings participating in this study. Recommendations: 1) adopting a theory driven evaluation approach offers a useful way to analyse the processes at work and develop a more nuanced understanding of what works, for whom, in what circumstances, how and why; 2) as contextual conditions are particulary dominant and not always overcome by facilitation, assessing the context and tailoring interventions to address this context is particularly important; 3) when designing studies for implementation of research into practice, ensuring the leadership of the setting prioritises the

intervention is essential; 4) there is a need to pay particular attention to facilitator selection, preparation and support, negotiating the balance between virtual and face to face support.

Project Context and Objectives:
Background: Research evidence is not always used to ensure best practice in healthcare. This study used the Promoting Action of Research Implementation in Health Services (PARIHS) framework which argues that the nature of the evidence, the context in which it is used, and the extent of facilitation (or help) that people have to use the evidence all effect whether it is used in practice.
Aims: The study aimed to extend knowledge of facilitation as a process for getting research evidence into practice by evaluating the contribution two different models of facilitation can make to implementing evidence based urinary continence recommendations into practice. The protocol for this study has been published (Seers et al 2012).
Methods: The study took place in four European countries (England, Sweden, Netherlands, Republic of Ireland), and planned to recruit six long term nursing care sites in each country (total 24 sites) involving people aged 60 years or more with documented urinary incontinence. An internal facilitator was nominated in each intervention site to work with external facilitators to implement the urinary incontinence (UI) recommendations. These recommendations were taken from the algorithm developed by Committee 11 [Incontinence in the frail elderly] of the Fourth International Consultation on Incontinence (DuBeau et al 2009). These recommendations included 1) the resident should be actively screened for incontinence, 2) a detailed assessment should be carried out, 3) an individualised treatment plan should be in place and 4) a specialist referral should be made if needed.
The design of the study was a pragmatic clustered randomised controlled trial with embedded process and economic evaluation. Long term care settings were randomly allocated to one of three arms (standard dissemination, and two different facilitation interventions), using a centralised randomisation point to ensure allocation concealment. The primary outcome was documented compliance score (or percentage compliance) with the continence recommendations. Secondary outcomes included proportion of residents with incontinence, incidence of incontinence related dermatitis, urinary tract infections and quality of life. These outcomes were assessed at baseline, then at 6, 12, 18 and 24 months after the intervention. Data about the context were collected throughout, using interviews with staff, residents, next of kin and key stakeholders. Observations of care, observations of facilitation, assessment of context (using the Alberta Context Tool) and documentary evidence were collected throughout.
Arm one, the standard dissemination control group, received the urinary incontinence recommendations and a PowerPoint presentation on implementation. Both facilitation intervention groups received the same materials as the control group plus a specific intervention as follows: arm two, Type A - technical facilitation, was a 12 month development programme based on management science, organisational learning, quality improvement and humanistic psychology. Internal facilitators (a staff member from each setting) took part in a three day residential programme run by two external facilitators, followed by 10 days to work on the implementation and evaluation of recommendations, supported by 12 half days for monthly teleconferences and self-directed study. Arm three, Type B - enabling facilitation, was a 24 month development programme based on critical social science concepts to focus on development of individual practitioners and contexts. Internal facilitators took part in a five day residential programme run by two external facilitators followed by 20 days to work on the implementation and evaluation of the recommendations, supported by 24 half day learning groups via teleconferencing, and 12 half days for self-directed study.
A model of co-facilitation was used in both of the facilitation arms where a second staff member or “buddy” worked with the internal facilitator, using this as a development opportunity, including taking the lead if the initial facilitator was unable to continue. In arm 3, internal facilitators were also offered the opportunity of a critical companion (who could help practitioners analyse all types of knowledge/evidence, blend and apply this knowledge in particular patient situations, overcome barriers to practising in a person-centred and evidence-informed way and learn in and from practice. Titchen 2003).
Our Knowledge Translation Strategy was developed using a model of stakeholder involvement throughout the study, and developing a portfolio of networking and dissemination activities. Stakeholder involvement informed the development and refinement of theoretical propositions both as the study progressed and as the findings emerged. A range of networking and dissemination methods were used to promote the input and involvement of countries from throughout Europe and beyond.

The objectives of the study are to:

1. Extend current knowledge of facilitation as a process for translating research evidence into practice.
Based on the PARiHS framework, two different models of facilitation were developed (described as technical and enabling facilitation), requiring different levels of facilitator skills and knowledge and with corresponding different levels of resource requirements in terms of preparation and support of facilitators and the ways in which they work with individuals and teams who are attempting to implement research into practice.

2. Evaluate the feasibility and effectiveness of two different models of facilitation in promoting the uptake of research evidence on continence promotion
An intervention study in four countries was set up to test the two different models of facilitation against a standard method of disseminating evidence of best practice on continence promotion. Six units per country participated in the study (two units for each of the three intervention arms). The research evidence to be implemented was agreed by a consensus, drawing on existing evidence in the form of systematic reviews and clinical guidelines on continence promotion. The continence recommendations used were those for incontinence in the Frail Elderly from the 4th International Consultation on Incontinence (2009). These evidence based continence recommendations were discussed with continence care experts on the FIRE Advisory Committee. Country continence experts also checked that recommendations fitted with their existing country guidelines where appropriate.

3. To advance current knowledge of guideline implementation in healthcare, with a particular focus on understanding the impact of contextual factors on the processes and outcomes of implementation
The research was underpinned by a theory-driven methodology, with a particular focus on explaining what works, for whom, how and in what way. A detailed set of contextual, process and outcome data were collected in all the study sites to track the detailed processes of implementing research evidence, to account for and explain contextual differences between and within countries, and to monitor the sustainability of changes over time.

4. Implement a pro-active dissemination strategy that complements the design of the study and facilitates the diffusion of the study findings to a wide policy and practice community throughout Europe and beyond.
Dissemination was planned in parallel to the design and implementation of the study, reflecting the theory-driven nature of the research and the importance of stakeholder involvement at all stages of the research process.

The project explored and evaluated facilitation as a process for promoting the uptake of research evidence on continence promotion in clinical practice. It built on previous research from the PARIHS (Promoting Action on Research Implementation in Health Services) framework. The study has advanced understanding about the contribution that facilitation and facilitators can make to translating the findings of research into practice. It looked at different models of facilitation to identify whether it is possible to determine a 'good enough' model of facilitation that could address the complex range of factors that influence the uptake of research evidence within the time and resource constrains of day to day service delivery.
Urinary incontinence has a major effect on quality of life of older people and their carers. Guidelines exist for managing urinary continence, but incontinence is frequently seen as an inevitable part of aging. Implementing research evidence that promotes continence has the potential to improve the quality of life for older people and their carers, and well as reducing costs of incontinence aids.

Project Results:
See MS Word document attached - FIRE 223646 final rpt v53 results

Potential Impact:
This study explored and evaluated facilitation as a process for promoting the uptake of research evidence on continence promotion in clinical practice. It built on previous research from the PARIHS (Promoting Action on Research Implementation in Health Services) framework. The proposition underlying the PARIHS framework is that successful implementation is a function of the nature and quality of the evidence being implemented, the characteristics and receptiveness of the context in which it is to be implemented, and the appropriateness of the facilitation approach used to enable implementation. The research was underpinned by a theory-driven methodology, with a particular focus on explaining what works, for whom, how and in what way. A detailed set of contextual, process and outcome data were collected in all the study sites to track the detailed processes of implementing research evidence, to account for and explain contextual differences between and within countries, and to monitor the sustainability of changes over time.
This study's first aim was to extend current knowledge of facilitation as a process for translating research evidence into practice. Two different models of facilitation were developed. Each model had different theoretical underpinnings, different levels of facilitator skills and knowledge, with corresponding different levels of resource requirements in terms of preparation and support of facilitators and the ways in which they work with individuals and teams who are attempting to implement research into practice. The study's second aim was to evaluate the feasibility and effectiveness of two different models of facilitation in promoting the uptake of research evidence on continence promotion.
In respect of these two aims, the findings showed that whilst both facilitation programmes were broadly feasible, neither of the facilitation programmes (Type A technical and Type B enabling) made a statistically significant difference to the primary outcome – documented compliance with continence recommendations. However, they did result in a small improvement in the documentation of level of cognition, depression and incontinence associated dermatitis, and some individual and home level changes were made. In addition the data revealed a strong country effect.
The study provided many insights that extended knowledge of facilitation as a process for translating research into practice and illuminated why documented compliance with continence recommendations did not significantly improve. Linked to this, the findings have also improved understanding of the impact of contextual factors on the processes and outcomes of implementation, which met the study's third aim.
The study looked at whether it was possible to identify a "good enough" model of facilitation that could address the complex range of factors that influence the uptake of research evidence within the time and resource constrains of day to day service delivery. What we found was that facilitation led to some changes in practice, such as the introduction of new assessment processes and tools/forms, and changes in staff perceptions and awareness of issues related to the impacts of incontinence for the client were reported in some settings. However, not all internal facilitators engaged with the study (although no site withdrew from the study), for example, not taking part in teleconferences which formed part of the ongoing facilitation programme. It was thus not possible to identify a "good enough" model of facilitation within highly varied contextual conditions. It seemed contextual issues were particularly dominant and were not always overcome by facilitation activities. The implementation of the facilitation approaches appeared to be mediated by characteristics of both the setting and the internal facilitator, by the level of engagement of both the site and the internal facilitator, and by prioritisation of the FIRE study by the long term care settings participating in this study.
The study has advanced understanding about the contribution that facilitation and facilitators can make to translating the findings of research into practice. It suggests that whilst there were changes in individuals and some homes, the context influenced the impact of facilitation and the ability of facilitation to overcome contextual issues was partial. An intervention that comprehensively addresses the context at a micro (individual), meso (team) and macro

(organisational) level would seem to be important, as it was barriers at all these levels that impeded the implementation of continence recommendations, and the facilitation programme as designed in this study, working via internal facilitators, and primarily focused at the micro and the meso levels, was only able to partially overcome these barriers.

Individual characteristics that seemed to influence an internal facilitators' capacity to enact their role included their enthusiasm, credibility, ability to engage others' 'hearts and minds,' fear of failure, and level of knowledge. However, their ability to function within their roles was influenced by more or less supportive contexts.

Overall, it seemed that the effect of facilitation was mediated by contextual characteristics and internal facilitator characteristics. The context characteristics included resources, knowledge and understanding of urinary incontinence, availability of staff, stability of practice environment, values and beliefs, starting point of the long term care setting, physical environment, leadership style and support. The internal facilitator characteristics included resilience, knowledge and understanding, values and beliefs, starting point and personal and formal authority.

There were some aspects that appeared important in relation to the facilitation programme and how well its approach "fitted" with both the internal facilitator and the style of the home. The external facilitators tried to tailor support as much as possible to the individual IFs. However, Type B facilitation in particular engendered for some a reaction of either really "getting" the approach and running with it, or feeling "this isn't for me". This sort of response was not identified in Type A facilitation. The use of a randomised controlled trial design meant that settings were randomly allocated to either one of the two facilitation interventions or the control arm. There was thus no possibility of matching the contextual characteristics of settings to a type of facilitation, although our understanding of how this might be undertaken would need further exploration and testing.

Another factor linked to the facilitation programme was the mode of delivery of the ongoing support. Although the initial residential programme for the internal facilitators was face to face, the ongoing support programme (12 months in Type A and 24 months in Type B) was provided virtually, using teleconferences and email. All four external facilitators (two for Type A and two for Type B) were very experienced. However, the virtual nature of the ongoing support was more challenging than originally anticipated, particularly for those internal facilitators with English as a second language. One lesson from this is that it is very difficult to take part in a teleconference in a second language when you need not only to understand, but to think and formulate your response in light of other contributions, and respond to challenge from external facilitators. For example, some IFs reported that by the time they had formulated a question, the discussion had often moved on. Those sites that utilised a critical companion, who could provide face to face help with language issues, amongst other things, reported this as very positive. The external facilitators also reported the difficulties of using virtual support.

Providing only face to face support from external facilitators is clearly much more labour intensive, and is not likely to be possible when rolling out an implementation of evidence based recommendations across settings. However, this study found local expert support can play a key role, and exploring and testing how on-going support might be best blended between local face to face support and more virtual support from external expertise is important. The study also highlighted the limitations of using a virtual model of ongoing support.

This study revealed that a complex interplay of contextual factors was crucial in determining whether recommendations for urinary incontinence were implemented in long term care settings for older people. It seemed contextual issues were particularly dominant and were not always overcome by facilitation activities. The implementation of the facilitation approaches appeared to be mediated by characteristics of both the setting and the internal facilitator, by the level of engagement of both the site and the internal facilitator, and by prioritisation of the FIRE study by the long term care settings participating in this study.

This study increased our understanding of the elements of the PARIHS model (evidence, facilitation and context). In this study, the role of evidence was uncontested. Staff accepted the evidence based continence recommendations, suggesting they were seen as high quality. Using a facilitation programme to enable implementation of continence recommendations resulted in some changes, but not in the primary outcome. We could question whether the primary outcome was the right one (the documented compliance with the continence recommendation), however, it appears to be appropriate to look at compliance with recommendations if this is what is being implemented. For Type B facilitation, some individuals and some settings seemed to feel it was not the right approach for them or their setting, while others really took off with this approach. Since this was not apparent in the Type A facilitation group, it may be that the individual and setting need to be more carefully matched when using Type B facilitation, and Type A facilitation may have a wider applicability across settings. There was no robust evidence in the primary or secondary outcomes which suggested that Type A or Type B facilitation resulted in better outcomes. The answer to "what is good enough facilitation?" is thus that either Type A or Type B could result in some changes, but neither affected the primary outcome of the study.

Since the data shows that both Type A and Type B groups did improve compared to baseline, one of the main explanations for the lack of a significant difference in the primary outcome appears to be that the control groups also improved over time. It could be argued that for the control sites, providing written evidence and an implementation guide, and/or being part of a study for two years with six monthly data collection had an effect. However, the qualitative data suggested that for most control groups, they did not use the written evidence and implementation guide. Only one of the six control sites reported being prompted to review their practice and its documentation knowing the researcher would be visiting

So Type A and Type B interventions did have a statistically significant effect on documentation of some secondary outcomes, a change not seen in the control group, although clinically this change was not large, and a substantial proportion of residents still had no documented assessment of level of cognitive impairment, depression and incontinence associated dermatitis between baseline and 24 months after the start of the facilitation intervention programme.

Overall, it seemed that the elements of the PARIHS framework did not carry an equal weighting in this study. The use of evidence, because it was not contested, acted as a background or underpinning factor. The facilitation had some impact,

but the element with the most weight appeared to be context. This is thus where greater effort in terms of enabling change needs to be focused. High quality evidence and high quality facilitation at a distance could not always overcome a challenging context. The role of the individual, recently added as an element of the PARIHS framework (Rycroft-Malone et al 2013) was supported by this study, because implementation of the facilitation approaches appeared to be mediated by characteristics of the internal facilitator.

Main dissemination strategy
The fourth aim of this study was to implement a pro-active dissemination strategy that complements the design of the study and facilitates the diffusion of the study findings to a wide policy and practice community throughout Europe and beyond.
Dissemination was planned in parallel to the design and implementation of the study, reflecting the theory-driven nature of the research and the importance of stakeholder involvement at all stages of the research process.
There are three main strands to out dissemination activities: First, dissemination at a range of national and international conferences; second, publication and third, engagement of a variety of stakeholders throughout the course of the study. A summary of the study, which has been translated into 8 languages, will enable widespread international dissemination.
1) Conference dissemination – see template A2
2) Publication list – see template A1
3) Engagement of Stakeholders
In line with the theory driven methodology underpinning the study, stakeholder engagement was undertaken to inform the development and refinement of the theoretical propositions that were used to guide the process evaluation. Three key stages of stakeholder engagement took place, at the start of the project and at months 22 and 46. In the initial stage of engagement, members of the project advisory were consulted to shape the high level propositions that underpinned the study design. Thereafter, the two subsequent stakeholder engagement activities involved interactive workshops with a wider group of academics and practitioners working in the field of knowledge mobilisation in health care. These took place at an annual meeting, the Knowledge Utilisation (KU) Colloquium, which is an international, invitational event. At month 22, a workshop on the FIRE project was held at the KU11 meeting in Belfast. This workshop was facilitated by members of the FIRE project team and was attended by over 30 participants from countries including Sweden, Denmark, UK, Canada and the US. A subsequent workshop at month 46 was held at the KU12 meeting in Melbourne, Australia and was attended by around 20 participants.

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