

Achieving Behaviour Change for Patient Safety

How to use the toolkit

Version 2.2

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Introduction

Background

Implementation of patient safety guidelines is rarely straightforward and compliance can be difficult to demonstrate and sustain. Traditionally, trusts have adopted a top-down approach in implementing mandatory guidelines by updating policy and disseminating this to staff. However, implementation often requires a change in the way people perform certain tasks (behaviour change) by health professionals, and as such there needs to be consideration of a range of technical, psychological and socio-cultural factors when designing an implementation package.

In recognition of this complexity, a behaviour change approach to patient safety has been developed using a framework of behaviour change – the theoretical domains framework (TDF; Michie et al., 2005), and principles of implementation science. This project aimed to challenge current ways of implementing patient safety guidelines (i.e., top down - management) by using an evidence based approach to identify issues specific to the local context (i.e., wards, departments) and develop interventions that target identified barriers to behaviour change (bottom up – front line staff). This approach has been tested in four Trusts across the Yorkshire and Humber region for the implementation of a range of patient safety guidelines (including nasogastric tubes, injectable medicines, midazolam, and medicines reconciliation). The results indicate statistically significant and clinically significant changes in target behaviours in all of the five evaluations undertaken to date following intervention implementation.

In an attempt to increase the sustainability of this work and continue to improve the quality and safety of care for patients, this toolkit has been developed help those involved in safety improvement initiatives to use a behaviour change approach to support the implementation of patient safety guidelines.

The Toolkit

The toolkit is presented in a series of six steps:

- 1) Forming implementation teams
- 2) Identifying the target behaviour(s)
- 3) Identifying local barriers to performing the target behaviour
- 4) Co-developing evidence based strategies with staff to address local barriers
- 5) Implementing interventions
- 6) Evaluation

Instructions for how to complete each step and accompanying resources will be provided. **We strongly advise that you read through each step of the toolkit before starting your project.** Reading through each of the steps will help you to form a plan that takes into account tasks required, and should help you to make more informed decisions about how you intend to measure (evaluate) change. The following summary documents will also be useful before you begin:

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- Summary of the Theoretical Domains Framework (TDF)
- Summary of behaviour change techniques (BCTs)
- Summary of BCTs with examples of practical strategies applied for patient safety
- Summary of how techniques have been used to address specific barriers in the context of patient safety

Additional training is available through a one day workshop on Behaviour Change for Patient Safety. The following website has information about forthcoming workshop dates: <http://www.bradfordresearch.nhs.uk/psbc>

Should you require additional support as you work through the steps in this toolkit, please contact our administrator and a member of our team will contact you carolyn.clover@bthft.nhs.uk

Step 1: Forming implementation teams

Summary

Generating a team of multidisciplinary staff who are interested in working on a new initiative to improve the safety of patients

Why is this important?

Forming a team of multi-disciplinary staff is important for the following reasons:

- Establishes commitment for the improvement project
- Generates common goals
- Shares workload/responsibilities
- Adopts the perspective of the target group
- Ensures change is driven by local context
- Incorporates change into established structures/processes

How to achieve it

- Decide on the patient safety guidelines you wish to implement and ensure senior management are supportive of this area of focus
- Find contact details for 2-3 members of staff who have expertise in this area
- Contact these staff
 - Explain the purpose of the work
 - Ask them to be a member of your implementation team
 - Provide a brief outline of what they will be required to do (be the clinical lead for the group alongside you, the improvement lead)
 - Ask them to provide you with a list of contact details for other staff who may be interested in professional development and/or patient safety. It is important that there is a multidisciplinary team
- Contact other potential implementation team members to ask them to be members of the team
 - Ensure they are aware that senior management and the lead consultant for the team are on board and outline some of the other benefits of being involved. E.g. CV development, learning about patient safety, conference abstracts, etc.
 - For example, in a project to implement guidelines to reduce the risk of feeding through nasogastric feeding tubes, we recruited a multidisciplinary team of 10 staff consisting of gastroenterology consultants, nutrition nurses, elderly consultants, dieticians, junior doctors, nurses.
- Arrange a meeting with all team members to explain the aims of the project and the approach. Emphasise the bottom up (versus traditional top down) nature of this initiative and that the interventions implemented will be both evidence based and co-developed with front line staff.
- We recommend a larger implementation team (e.g., 8-10 members of multi-disciplinary staff) in order to share the workload

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- Meet initially as required to maintain momentum, then around once every 6 weeks
- Clarify aims and objectives with the group early on
- Confirm actions for each group member at the end of each meeting
- Send single page agendas action notes before and after meetings, respectively
- Create Gantt Chart for this project so timescales are clear for the group
- Build in time to allow for clinical staff to perform tasks and plan meetings well in advance to account for rotas and busy schedules

Resources

- Step 1 resource 1: Draft emails to potential implementation team members
- Step 1 resource 2: Performa for contact details for experts and other champions/interested staff
- Step 1 resource 3: Agenda examples for meetings
- Step 1 resource 4: Action notes
- Step 1 resource 5: Example Gantt Chart

Step 2: Identifying target behaviour(s)

Summary

Identification of the behaviour to target for change

Why is this important?

Patient safety guidelines often focus on the main cause of harm and make the association between this and the failure to do (or not do) a specific behaviour. However, for staff these issues may not be salient because there are often a number of other recommendations to comply with in a guideline, and there is often no context-based evidence to link instances of harm with specific aspects of guidance. Establishing a specific target behaviour is also an important aspect of the TDF approach to behaviour change because it relies on the detailed identification of the barriers affecting a *specific behaviour*, rather than a set of behaviours.

How to achieve it

- First, read Step 2: Resource 1 - The case of identifying a target behaviour for NG tubes
- Discuss the guideline with your implementation team to:
 - Understand local practice, e.g. What is the current process? What documentation is used? Who is involved in the process/procedure from different areas of the hospital?
 - Inform the decision about areas of the organisation to audit - Are there specific wards that need more attention? e.g. due to poor practice/previous incidents relating to the guidelines, or that undertake procedures relating to the guideline very often, or rarely so do not get much practice
 - Gain an anecdotal understanding of the target behaviour to focus on
 - After discussing the process and current practice, try to get an understanding for where the problem areas may lie
- Break the guideline down with the team and discuss how they think practice currently operates in comparison to the guideline, for example:
 - Which parts of the current process are likely and unlikely to meet the recommendations? Why?
 - Have there been any incidents relating to a specific part of the process – where might these stem from?
 - Think about the consequences of performing each part of the process correctly/incorrectly on the subsequent stage
- Work with the implementation team to design a tool for auditing practice
 - Example audit tools can be found in Step 2 Resources
 - Tips for creating a useful audit tool include:
 - Simple to complete
 - Piloting with notes or ward observations

- It will allow you to measure change over time (e.g. pH first line = yes/no: this can demonstrate the % of patients who received pH as the first line method for checking tube position at various time points)
- Decide on how many audits should be undertaken to get a fair representation of practice
- Encourage the implementation team to pilot the audit tool and refine
- Encourage Implementation team members to audit current practice (often more junior staff will perform the audits but in some cases more senior clinicians will contribute)
 - Establish a method for obtaining information to audit, e.g. patient notes, etc. - an example email to medical records can be found in Step 2 resources
 - Ensure all auditors are clear about how the audit form should be interpreted and completed
 - Ensure audit forms are printed for auditors
 - Ensure there is a system set up for returning the forms to you
- Set up an excel spreadsheet with your audit data - a spreadsheet can be found in Step 2 resources
- Analyse the data
- Summarise the key results and start to assess them against the recommendations in the guideline
- Present the results back to the implementation team and discuss the areas of concern in relation to the guidelines
 - Try to think about whether the main area(s) of concern is the place to try to intervene with, or whether there is a trigger for this behaviour that should be targeted
 - Refer to Step 2 resource 1
- Confirm your target behaviour
 - Identify the staff group who should be performing the target behaviour – this is your TARGET GROUP
 - Make sure the target behaviour is a single behaviour
- For examples of target behaviours, see Step 2 resources
- If you have more than one behaviour you will need to narrow it down to the key point in the process
- If you have different behaviours for different staff groups, write down each target behaviour for each staff group. This means you have more than one TARGET GROUP

Resources

- Step 2 resource 1: NG tubes case study of identifying a target behaviour
- Step 2 resource 2: Example of draft email to medical records
- Step 2 resource 3: Audit form examples
- Step 2 resource 4: Target behaviour examples
- Step 2 resource 5: Example spreadsheet with NG data

Step 3: Understanding barriers to performing the target behaviour

Summary

Identification of the barriers to behaviour change

Why is this important?

Behaviour change occurs within a complex social and environmental system, leading to local variation in barriers and levers to change. These must be understood in order to develop appropriate and effective interventions.

How to achieve it

An ideal approach to understanding barriers would be to use the questionnaire described below, followed by short focus group interviews with staff to understand key barriers identified in the questionnaire in more detail. However, to ensure this approach to behaviour change is flexible enough to account for healthcare time constraints, we also suggest that it would be appropriate to use only the focus group discussions with staff to determine the key barriers faced by staff in your organisation.

Questionnaire

The Patient Safety Practices Questionnaire (PSPQ) has been designed based on a theoretical framework (Michie et al., 2005) to assess the barriers to performing a range of patient safety target behaviours. The questionnaire assesses 11 types of barriers (knowledge, skills, beliefs about consequences, motivation and goals, emotion, social influences, beliefs about capabilities, environmental context and resources, professional role and identify, action planning).

- An example of the questionnaire as it was used to reduce the risk of feeding through misplaced nasogastric tubes can be found in resources.
- See Step 3 resources for an example NG tubes questionnaire

*If you **are not** using the questionnaire, skip to the focus groups section on page 9*

- If you are using the questionnaire approach, first make a plan for how you will ensure as many staff as possible from your target group complete the questionnaire
 - Think about a key contact in the area(s) of the organisation you are focusing on
 - Arrange to meet with them to explain the project - see Step 3 resources for an example email
 - Ask them to encourage staff to complete the questionnaire
 - Consider a prize draw to encourage completion if you have available funds or are willing to contact organisations to request their support (e.g. by providing the prize, such as a gift hamper, gift vouchers, etc.)
 - Set a deadline for completion
 - Make use of your implementation team members for questionnaire distribution (e.g. ask each of them to get 10 completed)

- Once you have defined your target behaviour (step 2), you can type this into the questionnaire template
 - See Step 3 resources for questionnaire template
 - If you have different behaviours for different staff groups, create additional questionnaires
- You will also need to amend the introduction to the questionnaire so that the context is clear. It is important keep this brief
- Distribute the questionnaire to staff members who are supposed to perform the target behaviour
- Enter your data into the spreadsheet provided in Step 3 resources
 - The spreadsheet has been designed to compute the mean barrier scores for you
 - Select the top 3-4 highest scoring mean barriers – these are the key barriers for the group who completed a questionnaire

Focus Groups – Part 1

Part 1 of the focus groups is to understand barriers

Part 2 of the focus groups is to co-design interventions and guidance for this can be found in Step 4

- Make a plan for how you will recruit focus group participants with your implementation team
 - Try to organise between 2-4 focus groups with multidisciplinary staff who are involved in or affected by the target behaviour. Between 5-8 staff per group is usually appropriate
 - Sometimes it is better to keep clinical groups of staff together (e.g. one group for doctors, one for nurses, one for pharmacists), but other times it is sensible to mix (e.g. doctors, nurses, consultants)
 - Think about a key contact in the area(s) of the organisation you are focusing on
 - Arrange to meet with them to explain the project - see Step 3 resources for example email
 - Ask them about the best way to ensure staff attend your focus groups (e.g. through their encouragement, through an email from you, using weekly team meeting slot)
 - If possible, organise food/refreshments to encourage attendance
 - Use the implementation team members to recruit relevant staff to focus groups
 - Set a deadline for completion
 - Obtain a recording device
 - Book a room/organise a quiet space for the discussion
 - Take copies of key information such as the guideline you are trying to implement
 - Take copies of the resources listed below
 - Ensure at least one implementation team member attends the focus group to facilitate discussion / take notes

*If you **have** used the questionnaire, use the **Step 3 resource 6** focus group schedule template*

Following explanation of the purpose of the discussion and work so far, provide a description of the barriers in the context of your target behaviour, and highlight the top 3-4 key barriers identified. Prompt discussion with staff about their perceptions of the strongest barriers, and then ask staff to rate the barriers and come to a consensus.

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If you **have not** used the questionnaire, use the **Step 3 resource 7** focus group schedule template

Following explanation of the purpose of the discussion and work so far, provide a description of the barriers in the context of your target behaviour, prompt discussion with staff about their perceptions of strongest barriers, then ask staff to rate the barriers and come to a consensus.

Resources

- Step 3 resource 1: NG tubes questionnaire
- Step 3 resource 2: Email to organise questionnaire completion
- Step 3 resource 3: Questionnaire template
- Step 3 resource 4: Questionnaire data entry spreadsheet
- Step 3 resource 5: Email to organise focus groups
- Step 3 resource 6: Focus group interview schedule (following questionnaire)
- Step 3 resource 7: Focus group interview schedule (no questionnaire)

Step 4: Devising intervention strategies to address identified barriers

Summary

Co-design interventions to overcome key barriers to performing target behaviour with guidance from evidence based behaviour change literature

Why is this important?

Evidence suggests that external enforcement of guidelines or interventions for patient safety can produce a negative reaction to change amongst professionals at the 'sharp end' of patient care. A recommended approach to implementation is one that gives autonomy to local experts and allows them to develop interventions that recognise complexities and ambiguities of factors influencing safety in their own context. However, selected interventions still need to be informed by external expertise and evidence - in this case your expertise alongside evidence based guidance will be used whilst working with staff from the 'sharp end' to design locally relevant interventions.

How to achieve it

Focus Groups – Part 2

Before you conduct the focus group, you should read the following documents to understand how you will create your evidence based intervention.

- Step 4 resource 1: summary of Michie et al (2005)
- Step 4 resource 2: summary of behaviour change techniques (BCTs)
- Step 4 resource 3: summary of BCTs with examples of practical strategies applied for patient safety
- Step 4 resource 4: summary of mapping paper including matrix of domains and techniques and how techniques have been used in the context of patient safety for specific barriers

After you have worked with staff in the first part of the focus groups to clarify the barriers, you should summarise the top 3-4 and note them down in the table in section 2 of your focus group schedule.

- Use step 4 resources 3 and 4 to help guide the choice of intervention techniques that could be used to tackle each barrier
- Explain some of the techniques to focus group participants
- Ask participants to use the techniques in the table matched to each barrier to help devise intervention strategies
- *OR – if this is going to be too difficult, work with participants to generate ideas to tackle each barrier, then later code these ideas against the BCTs*
- It is advised that you/a member of your implementation team takes notes in the focus group, but that you also use a recording device so that you can refer back to content to help confirm the nature of the suggested intervention strategies. If you have resources for transcription or the time to listen to the recording and add to your notes, this would be beneficial

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Resources

- Step 4 resource 1: Summary of Michie et al (2005)
- Step 4 resource 2: Summary of behaviour change techniques (BCTs)
- Step 4 resource 3: Summary of BCTs with examples of practical strategies applied for patient safety
- Step 4 resource 4: Summary of mapping paper including matrix of domains and techniques and how techniques have been used in the context of patient safety for specific barriers

Step 5: Intervention implementation

Summary

Obtain senior management authorisation for each intervention, then work with your team to complete the implementation process.

Why is this important?

Evidence suggests that successful intervention implementation will consist of a process that is driven by local context, is incorporated into established structures, and which has management approval and on-going support.

How to achieve it

- Once you have confirmed the interventions that you hope to use, it is time to generate a report for senior management. This report will outline how you have completed each step in this process, and present the results you have found so far - an example report and a report template are provided in Step 5 resources
- The aim is to ensure you have clearly presented the results of the audit, how you decide on the target behaviour for change, and the key barriers and interventions
- At the end of the executive summary of the report, there should be a table which presents the key barriers, suggested interventions, and a space for authorisation
- Ask implementation team members to help compile the report and/or proof read/edit to ensure there is agreement amongst the group regarding the content and clarity of the report
- Request that senior management provide an amended copy of this report to you following authorisation of each intervention – provide a timeframe for senior management to respond - see Step 5 resources for example email to senior management
- Once the report is returned with authorisation to implement specific interventions, you should support team members to work through the process of implementing the strategies in the organisation - see Step 5 resources for example
- Keep a log of dates of implementation - see Step 5 resources for example

Resources

- Step 5 resource 1: Example report to senior management
- Step 5 resource 2: Report template
- Step 5 resource 3: Example email to senior management
- Step 5 resource 4: Example of how implementation team members might work to implement interventions
- Step 5 resource 5: Log of implementation dates

Step 6: Evaluation

Summary

A post-intervention implementation audit or a series of smaller, continuous audits (e.g. weekly, monthly) between the first audit and following intervention implementation

Why is this important?

Repeating the audit following implementation is important because it helps to determine the impact of the intervention on the performance of the target behaviour by staff within each organisation.

How to achieve it

If you decide to do a post-intervention audit only:

- Decide on how long the intervention(s) need to take effect and then organise a post-intervention audit from this time point
- Plan how you will undertake the audit well in advance of when you will need to obtain the notes
- Aim to audit the same number of notes over the same length of time (e.g. if at baseline 50 sets of notes were audited over 1 month, repeat this)
- Establish a method for obtaining information to audit, e.g. patient notes, etc. - see Step 6 resources for example email to Medical Records

If you decide to undertake continuous audit data collection:

Make a plan for how you will regularly obtain notes for auditing.

- This should be established in Step 1
- Ensure there will be enough sets of notes available to audit (e.g. some hospitals do not treat many patients with nasogastric tubes, so too few notes available per month)
- Retrospective – i.e. obtain notes from medical records from previous months
- Prospective – i.e. implementation team members audit notes on the wards during the patient's stay

For either type of audit, you should also:

- Ensure all auditors are clear about how the audit form should be interpreted and completed
 - Ensure audit forms are printed for auditors
 - Ensure there is a system set up for returning the forms to you
- Enter data into new spreadsheet in your original audit data file - see Step 2 resources for example spreadsheet
- Analyse the data
- Summarise the key results
- Add these to your report
- Add a discussion, recommendations, and conclusion section to your report - see Step 6 resources for example final report and a final report template

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Resources

- Step 6 resource 1: Example email to Medical Records
- Step 6 resource 2: Example final report
- Step 6 resource 3: Final report template

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Sustainability

Why is this important?

Putting plans in place to ensure the good work you have undertaken is sustained is important, as it allows for continuous improvement to be made.

How to achieve it

- Options:
 - Embed audit into current practice (e.g. 5 per week per ward)
 - Re-audit after 4-6 months to assess whether any improvements observed have been maintained
 - Implement a system whereby junior doctors rotating can pick this work up, keep the momentum, and pass on to the next rotation
- Organise for 4-6 month meetings to review current practice

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Feedback

As you work your way through this toolkit, or once you have completed your safety project, please consider providing us with your feedback regarding any of the following areas:

- Usability of the toolkit
- Opinions about the behaviour change approach to patient safety
- Areas for improvement for the toolkit
- Any results you would like to share

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Key references

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Michie, S., Johnston, M., Abraham, C., Lawton, R., Parker, D., & Walker, A. (2005). Making psychological theory useful for implementing evidence based practice: a consensus approach. *Quality & Safety in Health Care, 14*(1), 26-33.

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