# A framework and toolkit of interventions to enhance reflective learning among health-care professionals: the PEARL mixed-methods study

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## Scientific summary

### PEARL mixed-methods study

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# Scientific summary

## Introduction and background

Reflective learning is widely promoted as an educational tool for health-care professionals and is a required component of continuing professional development and revalidation. Reflection is included in all UK health-care postgraduate training programmes and is evidenced in professional portfolios, which, for doctors, must include multisource feedback from patients and colleagues. The General Medical Council states that 'reflecting on . . . experiences is vital to personal wellbeing and development, and to improving the quality of patient care' (Reproduced with permission from the General Medical Council. © 2020 General Medical Council. All rights reserved).

However, despite the widespread promotion of reflection as a tool for self-improvement, evidence that it is effective as such is weak, as is the evidence that feedback from patient experience surveys promotes effective reflection. To be effective, reflective learning must involve more than just completing a form and ticking boxes. The current 'summative' emphasis on reflection for career progression and revalidation may diminish its potential for lifelong reflective practice. Techniques for reflection need to be based on insights from behavioural sciences and evaluated using relevant process and outcome measures. The work of reflection must become a social enterprise rooted in a community of learning. This is the ethos of the Patient Experience And Reflective Learning (PEARL) project.

## Location

The PEARL project was developed in collaboration with three acute hospital trusts: University Hospitals Birmingham NHS Foundation Trust (Queen Elizabeth Hospital), Heart of England NHS Foundation Trust (these two have since merged) and Newcastle upon Tyne Hospitals NHS Foundation Trust (Royal Victoria Infirmary and Freeman Hospital). These trusts were selected because they care for large numbers of patients and provide a representative mix of both general and specialist clinical expertise.

The three trusts included three acute medical units and five intensive care units. We chose these settings to ensure that the reflective learning tools and activities would be acceptable to staff working in pressured and challenging environments.

## Participants

Each participating unit established a local project team consisting of clinical, managerial and administrative staff as well as patient and relative representatives with experience of the acute medical unit or the intensive care unit. Teams held bimonthly local project team meetings that were chaired by a non-executive director (executive director at one trust).

## Design and methods

The project had four interlinking workstreams.

### Workstream 1: project set-up

Local leads for each unit established a local project team consisting of medical, nursing, allied health professional, administrative and managerial colleagues and patients and relatives. Existing opportunities for feedback and reflection were identified. Teams held meetings once every 2 months to review project outputs, encourage team reflection (e.g. through existing meetings, team briefs and formal reports) and to consider methods for incorporating feedback in routine practice. The project funded a 0.4 whole-time equivalent research nurse for each team.

### Workstream 2: surveys of patients and relatives, and staff experience

Although the NHS routinely collects large numbers of data about the safety and quality of care, there is no single survey that offers sufficient detail to inform reflective practice at a local level, nor a centralised system for reporting free-text responses. Therefore, we chose to develop two PEARL project-specific surveys, taking care to avoid duplication of effort, retain question validity and maximise integration with currently active national surveys. Questions were converted to statements with a 5-point strength of agreement Likert scale. Both surveys were anonymous. Following piloting, units chose to distribute the patient surveys by post from the trusts' admission and discharge records, accompanied by an information letter and a pre-paid reply envelope. Staff surveys were handed directly to staff members with a pre-paid reply envelope. Ethics approval was obtained for implied consent. Surveys were printed in machine-readable form for central processing using Formic software (Formic Solutions, Uxbridge, UK). Free text was extracted and analysed using NVivo (QSR International, Warrington, UK).

For the patient and relative survey we selected questions from the Family Satisfaction Survey, the Adult In-Patient Survey and the Friends and Family Test. All survey questions were already validated in the UK. The survey was distributed continuously for 24 months. Unit-specific reports were prepared centrally and distributed to sites every 3 months. Unit data were benchmarked against comparable national data for specific questions, and against aggregated responses for all acute medical units and intensive care units in the PEARL project. Performance–importance plots were presented to show the extent to which responses to individual questions were related to overall ratings of satisfaction. Free-text responses were anonymised but otherwise presented verbatim.

For the staff survey we selected questions from the NHS Staff Core Survey, the Staff Friends & Family Test, the Hospital Survey on Patient Safety Culture, the Teamwork and Safety Climate Survey, the General Medical Council Trainee Survey and the Maslach Burnout Inventory. We developed additional questions to investigate attitudes towards the use of feedback for reflection and the potential for biases related to anxieties about transparency and honesty. The survey was offered to staff over a 1-month period in years 2 and 3 of the project.

### Workstream 3: ethnography

This workstream had two phases:

1. Phase 1 aimed to describe the current use of patient experience data, to explore options for the feedback of data as part of the reflective learning process and to investigate experiences of, and barriers to and opportunities for, workplace-based reflective learning.
2. Phase 2 focused on observations of co-design workshops, and on the implementation and piloting of reflective learning interventions. Findings from both phases were used to inform the development of the reflective learning framework and toolkit in workstream 4.

### Workstream 4: development of the reflective learning framework and co-design of the toolkit

The data collected through workstreams 2 and 3 were brought together in workstream 4 and used in the co-design process to develop the PEARL project reflective learning framework and toolkit. Through a series of local co-design meetings and plenary workshops in which staff and patients and relatives worked together, we explored what sort of events or interactions stimulated reflection and how reflection occurred, how reflection 'styles' differed between individuals and what sort of activities or tools would stimulate effective reflection 'on-action' and 'in-action'. We evaluated current theories of behaviour and how these might link to theories of reflection and learning to create the reflective learning framework, the logic model for the PEARL project.

Tools and activities developed in the co-design workshops or observed in use by the ethnographers were subjected to a prioritisation exercise by all participants to achieve a final list for development in the toolkit. These were classified based on the Capability, Opportunity and Motivation – Behaviour framework: behaviour (in the case of PEARL, reflection) is determined by capability, opportunity and motivation.

The toolkit structure and content were developed by the project management committee and the Art and Design Research Centre, Sheffield Hallam University (Sheffield, UK), and reviewed by the collaborators.

## Findings and outputs

### *Patient and relative survey*

Over 2 years, a total of 18,616 surveys were distributed and 4747 were returned (response rate: acute medical units, 20.1%; intensive care units, 35.4%; overall, 25.5%). Eight quarterly reports and one final summary report were provided to each unit. For both acute medical units and intensive care units, aspects of communication were more important determinants of overall (dis)satisfaction than care delivery. Overall satisfaction with care was high, but there were notable differences between unit type: median overall levels of satisfaction were higher among intensive care unit respondents than acute medical unit respondents. In response to the question 'How likely are you to recommend our unit to friends and family if they needed similar care or treatment?', 93.5% of intensive care unit patients and relatives selected 'extremely likely' or 'likely', compared with 74.3% of acute medical unit respondents. A similar difference was evident in responses to 'How would you rate the overall quality of care you/your relative received in the unit?' (93.1% of intensive care unit respondents selected 'excellent' or 'good' vs. 72.0% of acute medical unit respondents). Confidence in staff was high in both settings, but more respondents stated that they received answers that they could understand from doctors (89.2%) and nurses (92.7%) in the intensive care units than in the acute medical units (77.6% and 80.2%, respectively). Relatives stated that they were more likely to understand the responses they received from nurses than those they received from doctors (intensive care unit, 93.2% vs. 86.9%, respectively; acute medical unit, 78.6% vs. 72.7%, respectively). Local project teams circulated the reports to staff and discussed them at team meetings.

### *Staff survey*

Two rounds of the PEARL project staff survey were conducted, one in 2018 and the other in 2019. Of the 3235 questionnaires that were distributed, 1551 were returned (response rate 47.9%). There was no significant difference in overall domain scores between the first and the second surveys. Considering all responses, and combining negative and neutral responses, 90.2% of staff had confidence in the standard of treatment provided, 84.4% were proud to work for their unit, 80% were positive about teamworking and 86% would feel safe being a patient in their unit. By contrast, 52% of respondents did not feel valued by their trust, 30% felt that they were not treated with respect and 36.5% felt unable to make quality improvement suggestions. Almost half (47.7%) of the respondents considered communication between senior management and clinical staff to be ineffective and felt unable to question those with more authority (45.7%). However, staff were very positive about feedback and reflection. The great majority (92.8%) wished to use patient and carer feedback to improve their practice, but 43.6% said that resource constraints limited their unit's ability to act on patient feedback and only 53% thought that feedback would lead to changes in the unit. Almost half of the respondents felt emotionally drained by their work.

## *Ethnographic observations*

### Types of feedback of patient or staff experience

Staff described a diverse range of forms of feedback: formal trust-level patient surveys, informal personal feedback, mandatory multisource feedback for appraisals and unit-based activities, such as patient coffee mornings.

### Barriers to collection of patient survey feedback

Barriers to collection of patient survey feedback included high throughput of patients and limited time to establish relationships with patients and families (primarily in acute medical units). Staff in both acute medical units and intensive care units found it more difficult to approach patients lacking capacity, those whose primary language was not English or bereaved families.

### Dissemination of feedback

Units varied in the extent to which they actively 'pushed' patient experience data to staff, and how these data were disseminated and presented (e.g. e-mails, noticeboards, handovers and performance dashboards).

### Responding to feedback

Staff wanted and valued patient feedback. They acknowledged the value of both quantitative and qualitative data, and recognised the power of stories in generating emotional engagement. Critical or 'negative' feedback was important but also more difficult to handle. Feedback about matters outside their scope of influence was regarded as of little value.

### Barriers to engagement with formal patient feedback

Barriers to engagement with formal patient feedback, such as surveys or complaints, included concerns about bias, the feeling that patient experience was a nursing issue and not a 'clinical' matter, that most feedback was too general to have direct relevance and that critical comments or complaints were not delivered well.

### Reflective learning

All staff recognised the potential value of reflective learning, and most said that they reflected frequently or 'all the time'. They more frequently described reflecting on clinical practice than on patient experience, and on technical changes occurring in response to feedback than on changes in behaviour. Some felt that mandated reflection hampered authenticity. Reflecting effectively required training and a supportive organisational structure. Informal reflection was difficult to translate into improvements in behaviours.

### Implementing reflection activities

Within 2 months of the final co-design workshop, some activities were successfully implemented and becoming embedded in the units or used beyond the original plan. Other interventions had proved more problematic and either had not been started or had been tried but required amendments. The activities chosen by sites tended to focus on improving feedback on patient experience and providing opportunities for reflection to take place; there were fewer examples of using tools to support effective reflection, or ensuring that reflection resulted in learning or change.

### Optimising toolkit design

Staff wanted both ready-made and locally developed or adaptable tools and activities for reflection, accompanied by guidance and real-world examples of implementation by other units. They preferred tools suitable for use in the busy working environment that were not reliant on single individuals to make them successful. They wanted more time in the working day and more organisational support for reflection. They also wanted information to be included on the behaviour change 'science' behind the tools.

### *Reflective learning framework*

We drew on the Capability, Opportunity and Motivation – Behaviour framework (to determine behaviour) because this is a synthesis of 19 different theories of behaviour change. We linked the 'output' Behaviour (reflection) of Capability, Opportunity and Motivation – Behaviour to two theories of reflective learning (Dewey's three phases of reflection and Gibbs' six-step cycle), and to Schön's categorisation of reflection occurring 'in-action' or 'on-action'. We tested and developed this model iteratively during the ethnographic work in workstream 3, and in the co-design workshops, and found it to be useful as a descriptive and explanatory tool.

### *Co-design of the toolkit*

The nine local co-design meetings and three collaborative workshops were facilitated by the Art and Design Research Centre, Sheffield Hallam University. All meetings were well attended despite the clinical service demands. Eight of the nine local workshops included patient and family representatives. The first set of local co-design meetings in each centre focused on 'reflectable moments', in which participants used cut-out figures to recreate real-life situations that had stimulated insight into and understanding of patient and staff experiences. In the second set of meetings, the participants discussed reflective personae: fictitious but believable characters with differing approaches to reflection. In the third, they piloted a 'behavioural specification' to create an activity that would promote reflective learning. The interaction with patients and relatives, and the experiences of staff who had been patients, helped to maintain focus.

From the workshops and the ethnography observations we assembled 49 candidate reflective learning tools that were prioritised by the participants and edited by the project-managed team to achieve a final list of 25 tools. Seven of these reflective learning tools related to acquiring and using feedback, 14 to reflecting effectively (on-action) and four to reflecting in clinical practice (in-action). Each centre then held a final local co-design meeting without external facilitation to choose a maximum of three of the 25 prioritised interventions and develop them into practical tools. These ranged from a reflection poster to a Schwartz-type round. The tools were piloted and each centre then reported their experience to the final plenary workshop.

The central project team edited the selected tools in the form of short practical guides to promoting 'meaningful feedback', 'effective reflection' and 'reflection in practice'. The tools were assembled in a layered box for presentation to participating centres, together with resources and a booklet describing the background to the project and the underpinning theories. The utility and effectiveness of the toolkit should be evaluated in a subsequent cluster randomised trial.

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