Mixed Methods developmental study using patient and staff experiences to enhance reflection: The Patient Experience And Reflective Learning (PEARL) Project

HS&DR Final Report: Project ref 14/156/23

Keywords: Patient experience; staff experience; reflection; empathy; communication; acute care; intensive care; critical care

Word count (introduction to conclusion):26,804

Authors: Julian Bion^{1*}; Olivia Brookes²; Celia Brown³; Carolyn Tarrant⁴; Julian Archer⁵; Duncan Buckley⁶; Lisa-Marie Buckley⁶; Ian Clement⁷; Felicity Evison⁸; Fang Gao Smith⁹; Chris Gibbins¹⁰; Emma-Jo Hayton¹¹; Dr Jennifer Jones⁴; Richard Lilford¹²; Randeep Mullhi¹³; Greg Packer¹³; Gavin D Perkins¹⁴; Dr Jonathan Shelton⁷; Catherine Snelson^{11 13}; Dr Paul Sullivan¹⁵; Ivo Vlaev¹⁶; Daniel Wolstenholme¹⁷; Stephen Wright⁷; on behalf of the PEARL Collaboration.

¹ Department of Anaesthesia & Intensive Care Medicine, University of Birminghan, Birmingham, UK ² University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK

³ Population Evidence and Technologies, University of Warwick, Warwick, UK

⁴ Social Science Applied to Healthcare Improvement Research (SAPPHIRE) Group, University of Leicester, Leicester, UK

- ⁵ Royal Australasian College of Surgeons, Melbourne, Australia
- ⁶ Patient & Public Involvement Representative, Birmingham, UK
- ⁷ Critical Care, Newcastle upon Tyne NHS Foundation Trust, Newcastle, UK
- ⁸ Informatics Department, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK
- ⁹ Institute of Inflammation & Ageing, University of Birmingham, Birmingham, UK
- ¹⁰ Acute Medicine, Newcastle upon Tyne NHS Foundation Trust, Newcastle, UK
- ¹¹ Acute Medicine, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK
- ¹² Applied Health Research & Delivery, University of Warwick, Warwick, UK
- ¹³ Critical Care, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK
- ¹⁴ Critical Care Medicine, University of Warwick, Warwick, UK
- ¹⁵ Acute Medicine, Chelsea and Westminster NHS Trust, London, UK
- ¹⁶ Behavioural Science, University of Warwick, Warwick, UK
- ¹⁷ NIHR CLAHRC Yorkshire and Humber, Sheffield, UK
- * Corresponding author

Competing interests: All authors have nothing to disclose.

Important

A 'first look' scientific summary is created from the original author-supplied summary once the normal NIHR Journals Library peer and editorial review processes are complete. The summary has undergone full peer and editorial review as documented at NIHR Journals Library website and may undergo rewrite during the publication process. The order of authors was correct at editorial sign-off stage.

A final version (which has undergone a rigorous copy-edit and proofreading) will publish as part of a fuller account of the research in a forthcoming issue of the Health Services and Delivery Research journal.

Any queries about this 'first look' version of the scientific summary should be addressed to the NIHR Journals Library Editorial Office – <u>journals.library@nihr.ac.uk</u>

The research reported in this 'first look' scientific summary was funded by the HS&DR programme as project number 14/156/23. For more information <u>https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/1415623/#/</u>

The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR have tried to ensure the accuracy of the authors' work and would like to thank the reviewers for their constructive comments however; they do not accept liability for damages or losses arising from material published in this scientific summary.

This 'first look' scientific summary presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR Programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR Programme or the Department of Health and Social Care.

Scientific Summary

Introduction and Background

Reflective learning is widely promoted as an educational tool for health professionals and is a required component of continuing professional development and revalidation. Reflection is incorporated in all UK healthcare postgraduate training programmes, 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*'.

However, despite the widespread promotion of reflection as a tool for self-improvement, evidence that it does so is weak and so 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 PEARL.

Location

PEARL 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 NHS Foundation Trust (Royal Victoria Infirmary and Freeman Hospitals). 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 (AMUs) and five intensive care units (ICUs). 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 and patient and relative representatives with experience of the AMU or ICU. Teams held bimonthly local project team meetings which were chaired by a non-executive director (exec-director at one Trust).

Design and Methods:

The project had four interlinking workstreams.

Workstream1: Project set-up:

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

Workstream 2: Surveys of patient and relative and staff experience.

While the NHS routinely collects large quantities of data about the safety and quality of care, there is no single survey which offers sufficient detail to inform reflective practice at a local level, nor a centralized system for reporting free-text responses. We therefore chose to develop two PEARLspecific 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 reply-paid envelope. Staff surveys were handed directly to staff members with a reply-paid envelope. Ethics approval was obtained for implied consent. Surveys were printed in machine-readable form for central processing using Formic software. Free text was extracted and analysed using NVivo.

For the patient and relative survey we selected questions from the Family Satisfaction Survey (FS-ICU), the Adult In-Patient Survey and the Friends and Family Test (F&FT. 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 quarter. Unit data were benchmarked against comparable national data for specific questions, and against aggregated responses for all AMUs and ICUs in PEARL. 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, Teamwork and Safety Climate Survey, 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 one month period in years 2 and 3 of the project.

Workstream 3: Ethnography:

This workstream had two phases.

Phase I 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.

Phase II focussed on observations of co-design workshops, and of 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 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 PEARL.

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 COM-B framework: **B**ehaviour (in the case of PEARL, reflection) is determined by **C**apability, **O**pportunity, and **M**otivation.

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

Findings and Outputs:

Patient and relative survey:

Over two years 18,616 surveys were distributed and 4,747 returned (response rate AMUs 20.1%, ICUs 35.4%, overall 25.5%). Eight quarterly reports and one final summary report were provided to each unit. For both AMUs and ICUs, 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 amongst ICU respondents than AMU. 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 ICU patients and relatives selected 'extremely likely' or 'likely', compared to 74.3% of AMU 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 ICU respondents selected 'excellent' or 'good' vs 72.0% of AMU respondents). Confidence in the staff was high for both locations, but more respondents stated that they received answers they could understand in the ICUs for doctors (89.2%) and nurses (92.7%) than in AMUs (77.6% and 80.2% respectively). Relatives stated that they were more likely to understand the responses they received from nurses compared with doctors (ICU 93.2% vs. 86.9%, AMU 78.6% vs. 72.7%). Local project teams circulated the reports to staff and discussed them at team meetings.

Staff Survey:

Two rounds of the PEARL Staff survey were conducted in 2018 and 2019. Of 3235 questionnaires distributed, 1551 were returned (response rate 47.9%). There was no significant difference in overall

[©] Queen's Printer and Controller of HMSO 2020. This work was produced by Bion *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This 'first look' scientific summary may be freely reproduced for the purposes of private research and study and extracts may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

domain scores between the first and second surveys. Considering all responses, and combining negative with 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. In contrast, 52% of respondents did not feel valued by their Trust, 30% felt they were not treated with respect, and 36.5% felt unable to make quality improvement suggestions. Almost half (47.7%) considered that communication between senior management and clinical staff was ineffective, and felt unable to question those with more authority (45.7%). Staff were however 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% considered that feedback would lead to changes in the unit. Almost half 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, varying from 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: These included high throughput of patients and limited time to establish relationships with patients and families (primarily in AMUs). Staff in both AMUs and ICUs 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 this was disseminated and presented (emails, noticeboards, handovers, 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, such as surveys or complaints, included concerns about bias, the feeling that patient experience was a nursing issue, 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 recognized the potential value of reflective learning, and most said they reflected frequently or 'all the time'. They more frequently described reflecting on clinical practice rather than patient experience, and on technical changes occurring in response to feedback rather than 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 the first two months following the final co-design workshop some activities were successfully implemented and were 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 amending. The activities chosen by sites tended to focus on improving feedback on patient experience and providing opportunities for reflection to occur; there were fewer examples of using tools to support effective reflection, or ensuring 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 which 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 behavior change 'science' behind the tools.

Reflective Learning Framework:

We drew on the COM-B model (**C**apability, **O**pportunity and **M**otivation determine **B**ehaviour) as this is a synthesis of 19 different theories of behaviour change. We linked the 'output' **B**ehaviour (reflection) of COM-B 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 WS3, and in the codesign 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 which 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 which 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 which were prioritised by the participants and edited by the project managed team to achieve a final list of 25. Seven of these 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'. Together with resources and a booklet describing the background to the project and the underpinning theories, the tools were assembled in a layered box for presentation to participating centres. The utility and effectiveness of the toolkit should be evaluated in a subsequent cluster randomised trial.

Funder: HS&DR 14/156/23

Word count: 2384