Author's response to reviews

Title: Facilitated patient feedback can improve the quality of nursing care: an exploratory cluster randomised controlled trial

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Version: 2 Date: 22 May 2013

Author's response to reviews: see over
Dear Editor

Re: 1867377018823811 - Facilitated patient feedback can improve the quality of nursing care: an exploratory cluster randomised controlled trial

Thank you for these comments. We have re-formatted the paper in a way that we hope is now consistent with your requirements, and responded to the reviewers’ comments as follows:

Suzanne Richards

Methodological framework

Suzanne Richards’ comments were particularly useful in directing us towards a more appropriate framework for the paper. In response, we have now described the study more appropriately as a pilot, changing the emphasis from reporting the study findings to reporting the results of a pilot on the feasibility of conducting a Phase III trial. We have also included the word pilot in the title. We have checked the papers she refers us to (Campbell et al, CONSORT statement amended for cluster trials; Thabane et al, BMC Medical Research Methodology 2010, 10:1) and we believe that, as far as possible, we have met their recommendations.

Reviewer: “Why was a composite nursing score modelled? What questions were combined to produce the composite score (perhaps a box listing the question text?), And why was this thought to be a good idea?”

We made the following revision:

“The aim of the intervention was to improve nursing care in general, rather than to focus on specific aspects of nursing care. Therefore, the mean of a subset of 20 questions was used to derive a composite Nursing Care Score. The selected questions, listed in Box 1, were those which were most closely associated with the quality of ward nursing.”

Reviewer: Composite scores for satisfaction and/or experience can hide competing evaluations; identifying changes in practice could be obscured if one area improved as a consequence of acting upon patient feedback, but another suffered as a result of the drive to improve practice. This needs to be explained in the methods, and reflected on in the discussion.

We made the following revision:

“The use of a composite Nursing Care Score, based on questions that cover a wide range of aspects of nursing care, reduced the risk that any changes detected were isolated examples that masked deteriorations in other aspects of care.”

Reviewer: I am unclear as to exactly what was feedback to the nurses (i.e. 20 items versus a composite score) in the intervention arms as there is insufficient description in the text.

We have now added more details on the intervention:
“Written feedback”

Individual letters sent to nurses employed on Basic Feedback and Feedback Plus wards and their matrons included detailed ward-level patient survey results. The printed survey results comprised: (1) a bar chart for each of the 10 to 15 questions about nursing care comparing the six feedback wards in one hospital (with the target’s own ward highlighted in a different colour) and the NHS average. The bars showed the percentage of positive responses to a question; (2) as the study progressed and historical data were available, 10 to 15 line graphs, each showing the ward’s changes over time on one question about nursing care; and (3) a transcription of the comments patients had written in the spaces at the end of the questionnaire, under the headings “Was there anything particularly good about your care?”; “Was there anything that could be improved?” and “Any other comments?” A covering letter to the nurse explained the purpose of the study and included contact details for the lead researcher.

Ward meetings

On Feedback Plus wards, the printed survey results were supplemented with ward meetings with the researchers, during which the results discussed and, if necessary, explained, and there was an opportunity to ask questions about survey methods and to plan improvements in practice. Ward managers were responsible for inviting as many or few other members of their nursing team as they chose. Meetings took place in ward offices within normal working hours. Following meetings, the written survey results were sent individually to all of the ward’s nurses (regardless of whether they had attended the meeting) in the same format as used for Basic Feedback.

Reviewer: “The control group is also unclear; is this a ‘usual care’ condition for patient surveys? A little more description would be helpful.”

We have added the following paragraph:

“Control wards closely matched the usual condition for the annual national surveys. Their data were included in the set of results given to the Director of Nursing but no special efforts were made to communicate them at ward level. However, results would be made available to ward nurses if they requested them.”

Reviewer: “There is no clear data analysis plan under the methods section. This must be inserted and should be consistent with the pilot study aims rather than analysis of effectiveness as is presented here. I was expecting to see a preliminary report of effectiveness (with suitable caveats), and an estimate of the sample size required for a definitive trial.”

We have added the following sections:

“Feasibility objectives”

The intervention’s feasibility was assessed according to the following criteria:

• Could NHS trust record-keeping staff collate accurate ward-specific samples of patients?
• Could ward-level postal surveys be conducted successfully?
• Could researchers use the data from the returned questionnaires to produce ward-specific reports on the survey results?
• Would the researchers successfully arrange and conduct meetings on Feedback Plus wards and would nurses attend them?
• Would ward nursing staff understand the ward-specific survey reports and show an interest in them?
• Would nurses engage with the patient feedback and accept it as valid information about the quality of care they had provided?

"Statistical Analysis Plan

The outcome measure described above was designed to be analysed using a standard model that allows examination of its variation over the six time periods using a form of multilevel regression. The statistical model to be estimated is shown in equation (1):

\[ Y_{wt} = \beta_0 + \beta_1 N_w + \beta_2 G_{bw} + \beta_3 G_{pw} + \beta_4 t + \beta_5 G_{bw}t + \beta_6 G_{pw}t + \varepsilon_{wt}; \quad (1) \]

\[ \beta_{0w} = \gamma_0 + \delta_w; \]

where \( Y_{wt} \) is the mean Nursing Care Score in ward \( w \) at time \( t \), \( \beta_{0w} \) is a random intercept defined by the second equation, \( N_w \) is a dummy variable indicating that ward \( w \) is in Trust B, \( G_{bw} \) is a dummy variable indicating the ward was in the Basic Feedback group, \( G_{pw} \) is a dummy variable indicating the ward was in the Feedback Plus group, \( t \) is the time in months since the baseline survey was conducted, and \( \varepsilon_{wt} \) and \( \delta_w \) are random variables with zero mean and standard deviations \( \sigma_\varepsilon \) and \( \sigma_\delta \) respectively. The model implies that there is a fixed effect of Trust (\( \beta_1 \)), main effects of treatment group, which allows for there to be different mean Nursing Care Scores at baseline observation in the different groups (\( \beta_2 \) and \( \beta_3 \)), a main effect of time (\( \beta_4 \)), and interaction effects of treatment group and time, which allows us to see whether the direction and rate of change in nursing score varies across treatment groups (\( \beta_5 \) and \( \beta_6 \)).

The hypotheses to be tested involve tests of the statistical significance of \( \beta_5 \) and \( \beta_6 \). If Basic Feedback and Feedback Plus are effective, we would expect that \( \beta_5 > 0 \) and \( \beta_6 > 0 \) and if Feedback Plus is better than Basic Feedback, we would expect \( \beta_6 > \beta_5 \).

Reviewer: “The authors report what appear to be process evaluation data, but there is no method stated for how feedback from nurses was obtained (e.g. qualitative interviews? survey?). The results on page 4 (Nurse’s reactions to patient feedback) appear anecdotal, rather collected using some form of systematic method. Greater detail must be provided on how this information was collected.”

We have added the following section:

“Feasibility data

The data used to assess feasibility were collected during the course of the study. The survey contractor was asked to compare their experience of carrying out the national inpatient surveys and study’s surveys, and to report on any differences they noted. They were also asked to note the volume of calls to the telephone helpline, and to record the subjects of the telephone calls. The researchers made notes about nurses’ comments in ward meetings and conducted a telephone survey of ward managers on Basic Feedback wards, asking them what, if any, actions they had implemented as a result of the patient feedback. The qualitative data collected in meetings and telephone calls was examined for common themes.”

Dennis Scanlon

Reviewer: “For example, can you describe specific interventions that evolved from the Feedback Plus initiative, and more importantly, can you provide a discussion as to what types of interventions should yield positive changes in the survey outcomes and over what time period?”
We share the reviewer’s interest in finding out more about the specific actions that nurses could take to improve care. However, we were not able to identify any such actions through this research. (Incidentally, we have previously conducted other qualitative research (unpublished) to try to ascertain such information, but to date we have not been successful in identifying specific or generalisable interventions.) Published research suggests similar experiences (e.g. Davies et al. BMC Health Services Research 2011, 11:334 pages 6-7). We added the following statement:

“Actions to improve patient care
After the first meeting on each ward, at subsequent meetings the researchers asked nurses what actions they had taken to improve survey results, but it was difficult to ascertain clear examples of innovations in patient care. Their most common response was that nurse managers had raised the issue at daily handover meetings or in ward meetings and had reminded nurses of the importance of fulfilling their duties relating to ensuring patients’ experiences were positive.”

Reviewer: “Also, it seems as only two time periods -- baseline and follow-up -- are examined. Is that correct? Why were more time periods not examined to allow for learning and process improvements? What are the limitations of only having two measurements?”

We have now clarified that measurements were taken at six time periods:

“Statistical analysis plan
The outcome measure described above was designed to be analysed using a standard model that allows examination of its variation over the six time periods using a form of multilevel regression. The statistical model to be estimated is shown in equation (1):

Reviewer: “In short, the authors need to provide more contextual information to convince the reader that the tool used to measure the outcomes (i.e., the survey instrument) is or should be sensitive to the development of impactful interventions for nurses and staff that took the baseline survey results seriously. Stated differently, is there any prior evidence or qualitative evidence suggesting that the baseline results point to actionable changes that can be made by the ward staff? In a revision, I’d like to see the authors address these questions and provide more contextual detail.”

We have added the following clarifications in the introduction:

“One of the assumptions underlying England’s National Health Service (NHS) policy is that giving feedback about patients’ experiences to healthcare organisations will drive improvements.”

“To enhance the intervention’s acceptability to policy makers and NHS managers, and to maximise its chances of being adopted throughout England’s NHS hospitals, the Care Quality Commission’s (CQC’s) standard questionnaire and survey method currently used for inpatient national survey programme were used to obtain patient feedback. [20] The pre-tested questionnaire and postal survey method conform to widely-accepted methodological standards[21]: centrally monitored protocols ensure that participating organisations comply with a uniform sampling method and postal survey; questionnaires are tested to ensure that they cover patients’ priorities and can be understood by different demographic groups. [22,23] Questions are purposely designed to facilitate quality improvements by providing actionable feedback to healthcare professionals: patients are asked to report what happened to them regarding specific aspects of their care episode, rather than asking them to rate their satisfaction more generally. [24] The sensitivity of the inpatient survey to changes in patients’ experiences is supported by the improvements in the national results noted above.”
We also propose that one of the purposes of this study was to test an intervention designed to improve nurses’ willingness to take the results seriously, to determine whether nurses would take the results seriously, and to provide evidence on which aspects of the intervention were important.

“The intervention was designed to: (1) improve nurses’ willingness to accept ownership of the patient feedback by making survey results ward-specific; (2) increase the immediacy of the feedback by shortening the time taken to return survey results to clinicians to approximately twelve weeks after patients’ discharges (compared to approximately nine months to return national patient survey results to NHS trust managers); and (3) engage nurses’ interest by including patients’ comments alongside numerical results in printed reports. In addition, an enhanced version of the intervention included ward meetings to facilitate nurses’ engagement with the feedback; counteract scepticism about the relevance of the feedback to their practice; support them to act on the findings and give them an opportunity to ask questions about the surveys’ methodological reliability and validity.”

Elizabeth Davies

Reviewer: “The process for giving or sending surveys to patients could be explained a bit more together with the reminder process.”

We have added the following detail about the patient survey method:

“Questionnaires were sent out by post to patients’ home addresses. Letters accompanying questionnaires corresponded to the standard covering letter used for the CQC Inpatient Survey, with the added request that patients should relate their responses to the ward named in the covering letter. Consistent with the CQC survey protocol, the covering letter included details of a free telephone number, by which patients or their relatives could speak to a member of the survey contractor’s staff if they had any questions about the survey. Included with the questionnaire was a free postage envelope in which to return the questionnaire. At two-weekly intervals, two postal reminders were sent to non-responders. The second reminder included a duplicate questionnaire.”

Reviewer: “There could be more description of the method for collecting and reporting (and consent) for the observational part of the study from the meetings with nurses.”

We have added the following sentence:

“At the beginning of each meeting, nurses’ consent to take part in the study was obtained with the understanding that any comments they might make would not be attributed to individual nurses, and any details identifying individuals or their ward affiliation would be removed before they were shared with nurse managers or anyone else.”

We have also acknowledged this shortcoming in the discussion:

“The qualitative data collected by taking notes in ward meetings and conducting telephone interviews with ward managers provided useful insights into the mechanisms by which patient feedback is understood by nurses. However, the methods by which information about nurses’ reactions to the feedback were collected could have been specified in greater detail in the research design, and given a more formal structure.”

“A more detailed process evaluation plan should be included, along with a clearer structure for gathering information about nurses’ reactions to the feedback.”
We are grateful for this opportunity to submit a revised version of the report. We look forward to hearing from you.

Yours faithfully

Rachel Reeves.