Author’s response to reviews

Title: Health professionals’ perceptions about their clinical performance and the influence of audit and feedback on their intentions to improve practice: a theory-based study in Dutch intensive care units

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Dear editor,

Thank you very much for considering our manuscript entitled ‘Health professionals’ perceptions about their clinical performance and the influence of audit and feedback on their intentions to improve practice: a theory-based study in Dutch intensive care units’. You requested us to attend to the comments and suggestions the reviewers made. We did so with pleasure. Please find below our point-by-point response.

Yours sincerely,

Wouter T. Gude, MSc
Point-by-point response to the reviewers’ comments

We would like to thank the three reviewers for their time and efforts to read our manuscript very well and their valuable comments. We would like to respond to the comments point-by-point.

Comment 1 (reviewer 1):

You note that some tasks are not directly under participants’ control. Was there any pattern evident in their intentions or was there a team mentality that made everyone feel accountable for all the scores? I noted that "not my responsibility/ not under my control" was not a pre-set option as a reason not to intend to improve. Control/responsibility seems to me to be an important factor to consider as all performance indicators in health rely on teams, not individuals, and achieving coherent teams is a perennial problem. Presenting the breakdown of results by profession (with a brief explanation of their level of control over each indicator) would be interesting. One might hypothesise that no control = no intention to improve. On the other hand if researchers had assessed a strong team mentality - perhaps through observation of pain management in the unit - this has less relevance. Either way it should be discussed more fully.

Author’s response to comment 1:

We thank the reviewer for discussing this important issue. We added Additional file 3 which shows the results of regression analyses exploring whether there were differences between professional roles’ (nurses, intensivists, managers, other) estimations of clinical performance, targets, and intentions to improve practice for each of the quality indicators.

To the statistical analysis section we added: “We additionally assessed whether clinical performance perceptions and improvement intentions differed between professional roles (i.e. nurses, intensivists, managers or other) for each quality indicator (Additional file 3).” and noted in the results section (see tracked changes) that there were no differences between professional roles for any of the indicators.

In the discussion we added: “The fact that we found no significant differences in performance estimations or improvement intentions between professional roles for any of the indicators might reflect the strong team mentality and shared responsibilities in ICU patient care. As this might be different in other settings, it is however a pertinent point to consider whether feedback actually reaches the health professionals whose behaviour is targeted for change and whether the recommendations arising from the feedback make it clear who is responsible for taking action”.

Comment 2 (reviewer 2):

There are two points for revision in the abstract. 1) It isn't clear when did the collection take place. Please, clarify, or at least clarify that during the experiment the toolbox was inaccessible to professionals, such as is in "study setting" in the main manuscript. 2) What are ‘post-
intentional' barriers? I think this expression couldn't be clear to the readers. The expression 'post-intentional barriers' would be obvious to the reader?

Author’s response to comment 2:

We thank the reviewer for his/her suggestions. We added to the abstract’s method section: “The experiment took place approximately one month before units enrolled into a cluster-randomised trial assessing the impact of adding a toolbox with suggested actions and materials to improve intensive care pain management. During the experiment the toolbox was inaccessible; all participants accessed the same version of the dashboard.”.

We also changed the term ‘post-intentional barriers to actual change in clinical practice’ in the abstract’s conclusion to ‘barriers to translation of intentions into actual change in clinical practice’.

Comment 3 (reviewer 2):

Moreover, in general, it wasn't clear if there was any qualitative analysis from the theoretical framework (5) or if it only supported the discussions.

Author’s response to comment 3:

The approach of this study was quantitative; our theoretical framework (Control Theory) has a very simple and quantifiable hypothesis, namely IF perceived clinical performance < target THEN health professionals will develop intentions to improve, and vice versa. However, if this hypothesis was violated, for example when perceived performance >= target, we asked participants to state their reason in a qualitative way. Figure 1 (study design) describes which variables were collected in each step. Qualitative parts were “Reason for intention or lack thereof (if at odds with Control Theory / recommendation)” and “Reason for changing intention”. These qualitative data helped us to explain our quantitative findings on why some intentions did not follow our theoretical framework, or why participants changed their intentions after receiving feedback. We hope to have clarified this in the ‘data collection’ and ‘statistical analysis’ sections and Figure 1.

Comment 4 (reviewer 3):

Of significance, the authors note that given the great presence of health professionals' intentions to improve the care they provide, the limited effectiveness often found in audit and feedback studies is likely the result of barriers to translating intentions into actual change in clinical practice and that future research should focus on overcoming those barriers rather than convincing professionals to improve practice. If and how these insights were/will be used to augment the design and delivery of the audit and feedback intervention in the cluster randomised controlled trial involving this same group of intensive care professionals would be a useful addition to the discussion.
Author’s response to comment 4:

We thank the reviewer for his/her suggestion. This study shows that feedback recipients have many good intentions to take improvement actions; so there are barriers to translation of intentions into action. In the subsequent RCT, which is still running at the moment, we are testing the effects of adding an action implementation toolbox (more details see Study setting). Our hypothesis is that this may help close the gap between intention and action. In paragraph Unanswered questions and future research we therefore wrote: “The cRCT following the current study will (1) reveal whether teams target less indicators for improvement in practice e.g. due to prioritization or resource limitations, and (2) determine the effectiveness of augmenting the dashboard with an action implementation toolbox to address the gap between intentions and actions.”.