Author's response to reviews

Title: Influencing factors of speaking up for patient safety among hospital based health care professionals: an integrative review.

Authors:

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Author's response to reviews: see over
Dear sir/madam,

We thank you very much for your consideration and for giving us the opportunity to revise and resubmit our manuscript entitled ‘Influencing factors of speaking up for patient safety among hospital based health care professionals: an integrative review’, now we changed the title to ‘Evidence of the effectiveness of speaking up and its influencing factors among hospital based health care professionals: a literature review’ to accommodate reviewers’ recommendation) to your journal. We have reanalysed the influencing factors of speaking up using the model of employee’s voice by Morrison. This illustrated that future research should investigated the relative importance of the different factors (e.g. contextual factors, individual factors) influencing their perceived efficacy or safety of speaking up. We wish for it to be reconsidered for publication in your journal. We appreciate your comments and reviewers recommendation s, and have made several changes to our manuscript in order to accommodate them. We respond to the comments below.

Comments 1 (reviewer: Prof. Michaela Kolbe)

1. “Abstract: I think that there is already broad knowledge on “influencing factors” of speaking behaviour (e.g. recent papers by Morrison). From my point of view, the authors should provide their rationale why this review is necessary (e.g. Particular focus on healthcare? Identify contradictory findings? Identify further research needs and implication for practice? Evaluate the quality of existing literature?”

We modified the background in abstract as follows: ‘Understanding the influencing factors of speaking up behaviour in healthcare is important for improving patient safety. This review aims at: 1) assessing the effectiveness of speaking up for patient safety; 2) identifying the effectiveness of ‘speaking up’ training; 3) identifying the influencing factors of speaking up behaviour in health care settings; and 4) developing the model of speaking up behaviour.’

2. “Abstract: What will the reader learn in this paper and how will it help him/her to focus his/her research and/or clinical work?”

We changed the results and conclusion, respectively: “Many factors were found to influence speaking up behaviour: 1) contextual factors: hospital administrative support, interdisciplinary policy-making, team work and person’s relationship, attitude of leaders/superiors.; 2) individual factors: satisfaction with the job, responsibility toward patients, responsibility as professionals, confidence based on experience, educational background; 3) the perceived efficacy of voice: lack of changes and personal control; 4) the perceived safety of voice: fear of the responses of others or conflict and concerns of appearing incompetent; and 5) the message and clinical contexts: clinical situation, perceived risk for patient, communication skill. Contextual and individual factors influence on the perceived efficacy and safety of voice. After this decision process, clinical situation, perceived risk for patient, and communication skill promote or inhibit speaking up.” and “Hesitancy to speak up can be an important contributing factor to communication errors and/or adverse events. The perception of efficacy and safety of speaking up can be a key to improve speaking up behaviour.”
Two paragraphs were integrated into one: “Learning effective communication and teamwork skills is crucial to improving patient safety for health care professionals [1]. Frontline staff, such as medical residents and nurses, are well positioned to observe early signs of unsafe conditions in care delivery and bring them to the attention of the organisation [2, 3]. ‘Speaking up’ is defined as the raising of concerns by clinicians, for the benefit of patient safety and care quality, upon recognising or becoming aware of the risky or deficient actions of others within health care teams in a hospital environment [4, 5]. Such actions include mistakes (e.g. missed diagnoses, poor clinical judgement), lapses, rule breaking, and failure to follow standardized protocol. Speaking up is expected to have an immediate preventive effect on human errors or to improve technical and system deficiencies. Organisational research illustrates that, in many cases, people choose the ‘safe’ response of silence, withholding input that could be valuable to others or thoughts that they wish they could express [6, 7]. In health care environments, it has been shown that those who are aware of a problem often either speak up and are ignored or do not speak up at all [8, 9].”

We added the explanation of the Morrison’s model of voice behaviour. The explanation of the Morrison’s model was also added in the background as follows: “Previous organisational researches indicated that several factors influence on employee’s voicing behaviour. Such a silence can be caused by fear, by the desire to avoid conveying bad news or unwelcome ideas, and also by normative and social pressures that exist in groups [4, 5]. In addition, hesitance in speaking up or failure to indicate or correct errors can be caused by excessive authority gradients, excessive professional courtesy and/or deficiencies in resource or task management [8]. Morrison integrated the existing theory and research, and developed the model of employee voice [9]. In his model, it is presumed that the driving motive for voice is the desire to help the organisation or work unit perform more effectively or to make a positive difference for the collective. The voice reflects a deliberate decision process whereby the individual considers both positive and negative consequences; the perceived efficacy of voice, and the perceived safety of voice. The perceived efficacy of voice is the individual’s judgement about whether speaking up is likely to be effective. The perceived safety of voice is the individuals’ judgement about the risk or potential negative outcomes. The individual is faced with a balancing act of trying to be pro-social and constructive on one hand, yet mindful of personal costs on the other hand [9]. Contextual factors (e.g. organisational culture) and individual factors (e.g. job attitude, personality) affect these perceptions of voice. The voice from employee has important benefits for organisations and work groups and also the person who speak up [9]. The message type, tactic and target of voice also are an important factor for employees to decide to voice their opinions [9].”

We added the explanation of the aim of this review and its necessity: “Several interventions to improve teamwork and communications among healthcare staff have been introduced into healthcare [10]. While
teaching safety theory and/or team training may not be sufficient to empower health care professionals to voice their concerns [11]. Understanding the influencing factors of speaking up behaviour can be useful in designing patient safety improvement initiatives that lead to more effective and sustainable behavioural change and safety improvement outcomes. For such a purpose, this review aims at: 1) assessing the effectiveness of speaking up for patient safety; 2) identifying the effectiveness for training of speaking up; 3) identifying the influencing factors of speaking up behaviour in health care settings; and 4) integrating these factors into the model of employee’s voice behaviour.”

6. “Methods: I suggest moving the definition of speaking up to the background and also providing respective references.”

The definition was moved to the background with references. Please see comment 3.

7. “Methods: There are some sentences that seem somewhat separate from the overall flow of the manuscript (e.g. p.7: “This study focuses on communication between health care professionals within….”)

We removed these sentences (e.g. This study focuses on communication between health care professionals within…).

8. “Methods: p.8, I am not sure what the authors mean with ‘integrative review with a diverse sampling frame’.

We used the word ‘integrative review’ to explain that our review included a variety of study types. However, this explanation was not clear as you pointed out. We changed the sentences as follows: “This review prioritised articles that appeared to be relevant, rather than particular study types or articles that met particular methodological standards [14]. We included a wide variety of articles, including both the quantitative and the qualitative studies.”

9. “Methods: p.8, The authors describe that they used criteria to assess the quality of the studies they reviewed. In the results I did not find any results of this quality assessment – which I think would be very interesting. Based on the finding reported in Table 1, the methods applied in the primary studies vary a lot (and presumably so does their quality), I think this should be explicitly taken into account in the interpretation and into the development of further research needs.”

We added the results of this quality assessment in results sections, and also the evaluation of each study was added in Appendix 2. We described the quality assessment in the text as follows: “In all included studies, their aim, study process, and analysis method were described. They selected the study design for their research purpose appropriately (Appendix 2). Most of studies provide sufficient data to support their conclusion, while some studies provide limited data. These limitations described with their research results.” For example of these limitations, “Jeffs et al. reported that collective vigilance (e.g. the process by which clinicians would pick-up on potentially harmful errors made by another clinician) can potentially create risk by eroding individual professional accountability through reliance on other team members to catch and correct their errors [16], while their study included the limited number of participants from each speciality (e.g. 3 physicians and 1 technician). This phenomenon should be evaluated in the further study.”
10. “Methods: p.9, What type of content analysis was used for what purpose and based on which literature? Where are the results?”

We changed the explanation as follows: “For the evaluation of the effectiveness of speaking up for patient safety and the effectiveness of training, two reviewers (AO, Research assistant) independently abstracted the reported outcomes. These outcomes were heterogeneous, therefore, meta-analyses were not conducted. We summarised these result qualitatively. For developing the model of speaking up, we began with detailed inspection of all selected articles, gradually identifying recurring themes, and then we generated themes that helped to explain the speaking up behaviour being described in the literature [14]. At the stage of data abstraction, two reviewers (AO, Research Assistant) independently abstracted information (e.g. the influencing factors), and discussed the studies to determine consensus regarding the identification and coding of themes. The identified themes of influencing factors of speaking up were integrated into the model of employee’s voice [9].”

11. “Results: In the Title the authors preview ‘influencing factors’ whereas in the Results I also see findings reported on the relationship between speaking up and outcome variables. I think the authors offer than more their title suggests and I wonder whether the title could be changed to reflect this.

We changed the title as follows: ‘Evidence of the effectiveness of speaking up and its influencing factors among hospital based health care professionals: a literature review’

12. “Results: Similarly, on p.10 and 11 the authors report findings on ‘speaking up for patient safety’ (not sure what this phrase previews) and ‘the effect of speaking up training’, both of which go beyond what they have announced in the Background of their manuscript. I suggest clarifying the goals of the paper.

Thank you for your comments. We set up five aims of this study, as we have already explained it in above. In addition, the subtitle of ‘speaking up for patient safety’ was changed to ‘effectiveness of speaking up for patient safety’.

13. “Results: Regarding the presentation of the factors influencing speaking up, I strongly recommend to embed the findings into existing models which would also allow for integrating Table 1 and Table 2. So far, I do not understand how Table 2 is related to the findings of the literature review.

Thank you for your recommendation. We integrated the influencing factors of speaking up into Morrison’s model. Table 1 and Table 2 were removed, and Figure 2 shows the influencing factors of speaking up.

14. “Discussion: I suggest shaping the discussion to a) evaluate the current state of research based on the review findings, b) identify issues that are well-studied and those are not; c) identify precise research needs, d) if possible, develop implications for practice.

We changed the discussion: 1) the effectiveness of speaking up for patient safety: There have been a few studies investigating the relationship between the speaking up behaviour of health care professionals and patient safety outcomes; They indicate that hesitancy to speak up can be an important contributing factor in communication errors. Collecting the cases of speaking up and its outcomes, including the impact on team
members, can be an important step to understand the consequences of speaking up. 2) effectiveness of ‘speaking up’ training: There is no strong direct evidence that coaching in speaking up improves patient safety. However, Kolbe et al. demonstrated that a nurse’s level of speaking up is a predictor of technical team performance. If trainers consider the influencing factors of speaking up, which are shown in Figure 2, it will help to design the training program that lead to more effective and sustainable behavioural change and safety improvement outcomes. 3) Influencing factors of speaking up: Many factors which found in this review are similar to those of employee’s voicing behaviour. Most of included studies in this review used an exploratory approach to investigate the influencing factors of speaking up. Many studies in this review emphasised the importance of team relationships or attitude of leaders to enhance speaking up. However, recent study reported that the perceived behaviours of actual leaders were only modestly correlated with implicit theories about speaking up to leaders. Detert and Edmondson concluded that employee’s silence can be thought of as influenced as much by their own cognitive frameworks as by current bosses’ behaviours or other organisational factors [42]. It can be beneficial to investigate the relative importance of the different factors (e.g. contextual, individual) influencing the perception of efficacy or safety of speaking up.

15. “Discussion: I also think the authors should describe what their review adds to the current literature.

We added the discussion as follows: “Despite these limitations, this review helps us to understand how health care professionals think about speaking up their concerns for patient safety. This review also provides some direction for future research.” Our implication for future research were described in comment 14.

Comments 2 (reviewer: Prof. Peter Dieckmann)

16. “My major challenge with your paper is that in my mind the results section and the discussion are too similar and both are kind of narratively describing the findings. I would have wished for a more “interpreting” section – in the discussion section, you began, but I think the points could be made more sharply.”

Thank you. We integrated the influencing factors of speaking up into Morrison’s model of employee’s voice. This made our discussion points more clear.

17. “I would wish for a table that summarized the findings that you had. You could have it by study and extract the respective key points. Or by key points, citing the studies that relevant.”

We summarised our findings in Figure 2, using the model of employee’s voice behaviour.

18. “I would be interested in hearing more about the procedures that you used to content analyse the selected studies. How did you deal with studies, for example, that had many interesting points in them?”

We added the explanation, please see the comment 10.

19. “In the first paragraph of the results section you provide the percentages for the publication years for example. As your sample is 27 articles, I would simply report the relative frequencies.”
We provided the relative frequencies: “in total 26 studies in 27 articles were identified; 7 articles were published in 2012, 2 or 3 were published between 2006 and 2011 each year, and 3 were published before 2006 [3, 12, 15-39].”

20. “You nicely discuss a limitation of the literature, mostly stemming from western cultures. I think for speaking up such cultural differences can be very interesting to analyse in more detail.”

Thank you for your advice. We believe that cultural differences are very interesting and important points. However, in this review we found scant data from outside of Western countries. This may explain that we selected English articles. We would like to investigate the cultural differences (or similarities) of speaking up in future study.

Comment 3 (reviewer, Prof. Sarah Henrickson Parker)

21. “The discussion does not link very explicitly to the results section’s categorization of the papers.”

We changed the discussion, please see comment 14 and 15.

22. “p.5, ‘tuition’ I think you mean teaching or tutoring.

We changed the word from ‘tuition’ to ‘teaching’.

23. “p.5, don’t understand how Sasou’s model fits.”

We removed the Sasou’s model from the text. We did not use this model. We are sorry for making you confused.

24. “p.7, what does ‘several patient safety and educational experts were consulted’ mean?”

We asked patient safety experts about team communication and speaking up at the congress or research meetings to find more articles of speaking up. We changed the sentences as follows: “In addition, we discussed team communication with several patient safety experts and asked them to refer us to the relevant speaking up studies.”

25. “p.8, ‘explicated’ I think you mean ‘executed’”

We changed the words from ‘explicated’ to ‘executed’. In addition, our manuscript checked by native English speaker before resubmitting the manuscript.
We thank you for your consideration and constructive comments. We hope that you find the revised manuscript suitable for publication in your journal. If you have any questions or additional remarks, please contact Ayako Okuyama. We look forward to your reply. I also attached the file of MarkedCopy for review, which shows the points we changed.

Sincerely,

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Title: Evidence of the effectiveness of speaking up for patient safety and its influencing factors among hospital based healthcare professionals: a literature review (3717 words)

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