Author’s response to reviews

Title: Exploring the role of competing demands and routines during the implementation of a self-management tool for type 2 diabetes: A theory-based qualitative interview study

Authors:

Sebastian Potthoff (sebastian.potthoff@northumbria.ac.uk)
Justin Presseau (jpresseau@ohri.ca)
Falko Sniehotta (falko.sniehotta@ncl.ac.uk)
Matthew Breckons (matthew.breckons@ncl.ac.uk)
Amy Rylance (amy.rylance@diabetes.org.uk)
Leah Avery (leah.avery@ncl.ac.uk)

Version: 1 Date: 29 Nov 2018

Author’s response to reviews:

Dear Mr Krueger,

Thank you for your review of our manuscript and for your helpful comments. We would also like to extend our thanks to the reviewers for their helpful feedback. Please see below for our responses to each of the reviewer’s specific comments. Additions/changes to the text of the manuscript have been highlighted in green.

On behalf of the co-authors, thank you for considering our manuscript and we look forward to hearing from you in due course.

Best wishes,

Sebastian Potthoff

Reviewer 1

Comment: My main comments are driven by interest of in-depth the translation of the results to implementation science, i.e. the development of novel decision support systems. On this regards I would suggest to expand this perspective, and to discuss how the proposed analysis might fit in the concept of "Learning Health System" (as described in "The forgetting health system" by

Coiera, and applied in the T2D context in "A dashboard-based system for supporting diabetes care" by Dagliati).

Response: We agree that the results of this study could have implications for the development of novel decision support systems. We expanded on this perspective in the background section by discussing how the Diabetes UK Information Prescriptions may fit within a Learning Health System (p. 8): “DUK IPs can be used through all major primary care IT systems in the UK (i.e., EMIS Web, Vision, and SystmOne). Their installation on interconnected IT systems allows for continuous updating of the DUK IPs in the light of emerging research evidence. As learning health systems increasingly incorporate intelligent IT systems, DUK IPs have the potential to have a role within integrated online decision support and dashboard systems to support diabetes care [1].”

And in the discussion section (p. 22): “This raises the importance of designing decision support tools (such as the DUK IPs) that fit within a learning health system. Such tools need to have mechanisms in place to ensure systematic decommissioning of low-value-care practices [1]. For example, the DUK IPs can be kept up to date via the primary care IT system (top-down control) or de-activated locally on the practice computers (bottom-up control). Future decision-making support systems need to have similar processes in place to ensure their decommissioning when they are no longer supported by evidence or when new and better interventions come to light.”

Comment: Although the statistical analysis sounds and the interrater reliability results show a sufficient level of agreement, I wonder if authors took into consideration possible "practice effects", as it seems they've included in the analyses only one professional per centre.

Response: We agree with the reviewer that there may be a range of practice or team level effects that may have an impact on the implementation of the Diabetes UK Information Prescriptions. We have now raised this issue in the limitations section (p. 23): Lastly, this study is limited in that it only included one healthcare professional per practice. Future studies should include a number of healthcare professionals per practice to understand how different people work together to implement the DUK IPs. An approach such as the Normalization Process Theory [NPT; 2] may help inform such explorations as it provides a number of generative mechanisms of social action. For example the construct ‘Activation’ refers to the need for people to collectively define the actions and procedures that are needed to maintain a practice and stay involved [2].

Comment: Few minor comments regarding the improvement of the "Habit and healthcare professional behaviour" chapter at page 5, where authors should give a more rigorous definition of "dual concept" in order to be consistent in the following text.

Response: We appreciate this comment, thank you for the opportunity to better link the definition to the subsequent text (p. 5-6): “According to these models there are two internal processes that operate in parallel that determine behaviour—a reflective and an impulsive process [3]. The reflective process involves slow and effortful decision-making that operates
under full conscious awareness [3]. This process is consistent with most contemporary theories of behaviour that consider outcome expectations, self-efficacy, intention and planning and there is considerable research suggesting the importance of reflection [4]. The impulsive process involves quick and efficient processes that operate outside a person’s awareness [3]. This impulsive process includes automatic action tendencies, i.e. the degree of automaticity with which the behaviour is performed.”

Comment: Figure 1 needs a caption that illustrates the concepts in details.

Response: Thank you for this helpful suggestion. We agree that a figure needs to be interpretable on its own and have added the following text to the caption (p. 31):

Figure 1. Process model of the topic guide used to facilitate interviews. The reflective process illustrates the sequential relationship between motivational (outcome expectations, self-efficacy, intention) and volitional (action planning, coping planning) factors and healthcare professional behaviour. The impulsive process shows the parallel influence of automaticity on behaviour. The multiple behaviour process acknowledges that the enactment of clinical behaviour is also influenced by the range of competing goals that healthcare professionals face in their clinical practice.

Comment: Define and provide a reference for Nvivo 7 (page 10).

Response: Thank you we have added the following reference in the reference list (p. 29): “NVivo qualitative data analysis Software; QSR International Pty Ltd. Version 10, 2012.”

References


