HOW CAN THE MYCOGNITIONPRO HOLISTIC DIGITAL HEALTH PLATFORM FOR MONITORING AND PREVENTING COGNITIVE DECLINE BE SUCESSFULLY IMPLEMENTED INTO THE REAL-WORLD CONTEXT OF PEOPLE EXPERIENCING COGNITIVE DECLINE?

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Knowledge Transfer **Partnerships**

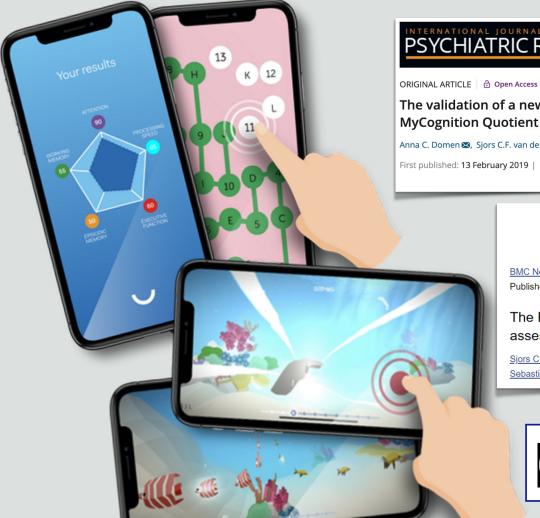
Radboudumc

PMID: 2780979



AFFILIATIONS

The University of Northampton Beingwell Innovate UK



PSYCHIATRIC RESEARCH

ORIGINAL ARTICLE | 🙃 Open Access | 🙃 👣

The validation of a new online cognitive assessment tool: The

Anna C. Domen 🗷, Sjors C.F. van de Weijer, Monique W. Jaspers, Damiaan Denys, Dorien H. Nieman First published: 13 February 2019 | https://doi.org/10.1002/mpr.1775 | Citations: 5

Amsterdam UMC

NHS Northamptonshire Healthcare



BMC Neurology

Published online 2016 Nov 3. doi: 10.1186/s12883-016-0731-z

The Parkin'Play study: protocol of a phase II randomized controlled trial to assess the effects of a health game on cognition in Parkinson's disease <u>Sjors C. F. van de Weijer, ¹ Annelien A. Duits, ² Bastiaan R. Bloem, ^{3,5} Roy P. Kessels, ^{4,5} Jacobus F. A. Jansen, ^{6,7}</u> Sebastian Köhler,⁷ Gerrit Tissingh,⁸ and Mark L. Kuiif^M

Development track

Academy for Dementia Research & Education

Methods

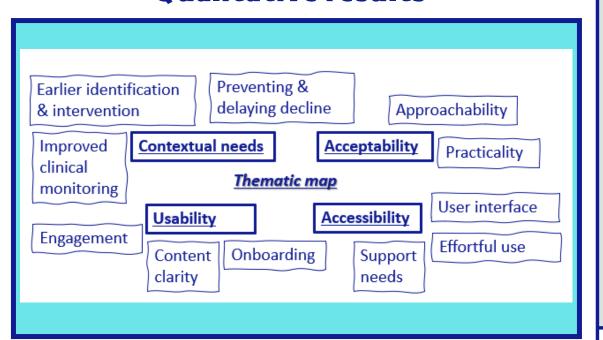
Mixed methods feasibility trial:

- Likelihood app can be used effectively (usability/experience data)
- Likelihood app can be implemented successfully (contextual data)

Participants (n=20)

- Over 50 years experiencing cognitive decline
 - Subjective
 - Diagnosed early-stage (MCI, mild dementia).

Qualitative results



Experience evaluation

Think-aloud observation and semi-structured interviews captured qualitative data as the participant engaged with each part of the platform.

n= 15

Engagement period

Participants asked to take MyCQ assessment once per week and play the AquaSnap training game for 15mins per day (at-home). Quantitative platform engagement & performance data was captured.

n= 19

Onboarding evaluation

Think-aloud observation and semi-structured interviews captured qualitative data as the participant was guided through how to download and use the MyCognitionPRO platform.

n= 19

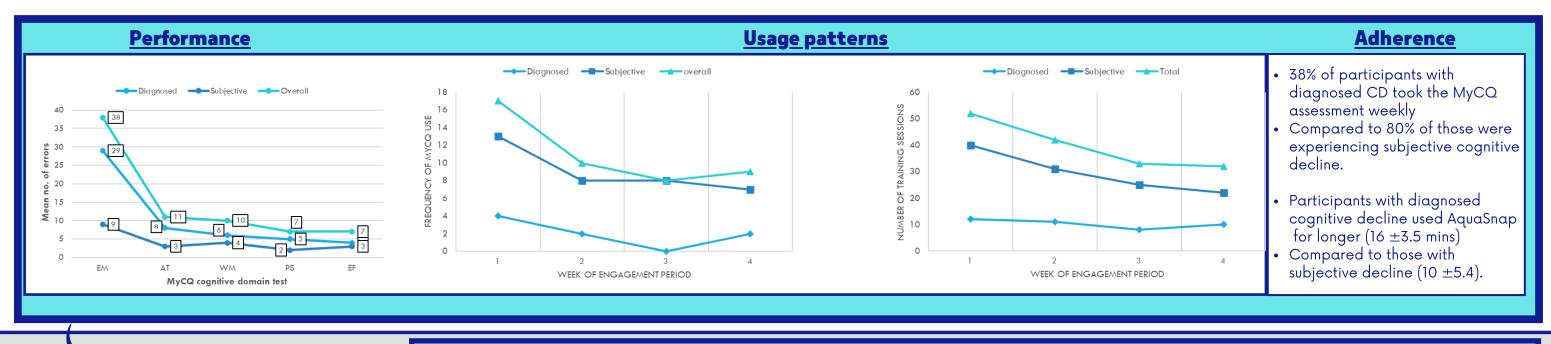
"Blimey!...he will not remember what to do when we get home, he will have no idea, the only way he will do that is with me to help him"

Carer of person with Mild Dementia

"I think that there is a lot of good in each of the apps. It is just a matter of refining them and making it a lot clearer on how to use them, making them a lot more user-friendly."

Person with subjective cognitive decline

Quantitative Results



Conclusion

At present, the apps work best as a preventative, self-management tool for people experiencing subjective cognitive decline. The apps require significant developments to meet the needs of older people experiencing cognitive decline. This is summarised in the user-centred product roadmap.

REFERENCES

- Domen, A. C., Weijer, S. C. F. van de, Jaspers, M. W., Denys, D., & Nieman, D. H. (2019). The validation of
- Denys, D., & Niemán, D. H. (2019). The validation of a new online cognitive assessment tool: The MyCognition Quotient. International Journal of Methods in Psychiatric Research, 28(3), e1775.
 van de Weijer, Duits, A. A., Bloem, B. R., Vries, N. M. de, Kessels, R. P. C., Köhler, S., Tissingh, G., & Kuijf, M. L. (2020). Feasibility of a Cognitive Training Game in Parkinson's Disease: The Randomized Parkin'Play Study. European Neurology, 83(4), 426–432.
 NHFT MAS, MYCOGNITION (2020)
 ATLAS CARE, MYCOGNITION (2021)
- Onboarding Alleviate pain points (login, multiple apps, instructions) App demo/walk-through Push notification planning system Update age & diagnosis standardisation norms for scoring algorithm MvCQ assessment Update user reports- incorporate ADLs (advanced-basic), friendlier language Improve visual clarity Reduce speed of tasks Validate against standard clinical assessments (MoCA, ACE-III, MMSE) Improve adaptiveness of task speed and difficulty (MvCQ & ongoing performance data) Aquasnap training game Improve progression reports Increase game/stimuli variety Improve mindfulness/relaxation element Shorter training loops New service model Encourage private groups- parallel login and group-based reports Incorporate social engagement- allow sharing Operational advice/CPD webinars for group-based delivery

User-centered product roadmap

Activities required to achieve growth opportunity