Qeios

Peer Review

Review of: "Development of a Tool (CACTIS) to Aid the Design of Behaviour Change Interventions Using the COM-B Model, Behaviour Change Wheel, and Behaviour Change Techniques Ontology"

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A great insight into the development of the CACTIS tool, which I am certain will provide valuable support for those developing behaviour change interventions. As someone who has designed a digital intervention for children with BCTs in mind, I particularly liked the iterative approach taken to developing the tool. Continually reviewing the COM-B targets and IF/BCT mappings and refining through stakeholder feedback and emerging evidence was good to see. This should help CACTIS remain relevant and useful as the evidence base develops.

As the authors acknowledge, the next important step will be formal evaluation and validation of CACTIS. Given the iterative nature of the tool, it would be interesting to understand how the authors envisage this being undertaken. For example, assessing whether CACTIS improves the quality, completeness, or consistency of intervention strategies, and whether different users arrive at similar decisions when addressing the same behavioural problem, could provide useful evidence of its value in practice.

I am particularly interested in the planned development of the LLM component. The ability to take the structured outputs from the COM-B and BCT selection process and use these to support the development and refinement of an intervention could be extremely useful for interventionists. I look forward to seeing how this develops, particularly whether future work can explore how well LLM-generated strategies retain the theoretical logic and human judgement captured within CACTIS.

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Overall, I think this is a really useful contribution to the field, and I will certainly be keeping an eye on how CACTIS develops and is evaluated in the future.

Declarations

Potential competing interests: No potential competing interests to declare.