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How Single Is “Single” - Some Pragmatic Reflections on Single Versus Multifaceted Interventions to Facilitate Implementation

Comment on “Translating Evidence Into Healthcare Policy and Practice: Single Versus Multifaceted Implementation Strategies – Is There a Simple Answer to a Complex Question?”

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Abstract

An earlier overview of systematic reviews and a subsequent editorial on single-component versus multifaceted interventions to promote knowledge translation (KT) highlight complex issues in implementation science. In this supplemented commentary, further aspects are in focus; we propose examples from (KT) studies probing the issue of single interventions. A main point is that defining what is a single and what is a multifaceted intervention can be ambiguous, depending on how the intervention is conceived. Further, we suggest additional perspectives in terms of strategies to facilitate implementation. More specifically, we argue for a need to depict not only what activities are done in implementation interventions, but to unpack functions in particular contexts, in order to support the progress of implementation science.

Keywords: Facilitation, Implementation, Knowledge Translation (KT), Multifaceted Interventions, Single Interventions

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It is with much interest that we have read the results of the overview of systematic reviews by Squires et al¹ that considers single component and multifaceted implementation interventions, and the subsequent editorial by Harvey and Kitson in *International Journal of Health Policy and Management (IJHPM)*.² Both papers elaborate on issues of immediate interest, reflecting both theoretical and practical aspects with regards to strategies to facilitate the implementation of knowledge in healthcare practice. Based on their findings, Squires and colleagues¹ propose that there is no compelling evidence that multifaceted interventions have greater impact than single interventions. Harvey and Kitson² depart from these findings but broaden the perspective and argue that using a single or multifaceted intervention is only one aspect of the complexity and context-dependency inherent in knowledge translation (KT). Based on experiences from studies where we have evaluated various approaches to support implementation, we would like to propose yet additional perspectives to this discourse.

Firstly, we would like to consider the concepts of ‘single’ and ‘multifaceted’ interventions, respectively. Squires et al¹ use the Cochrane Effective Practice and Organisation of Care Group definition regarding multifaceted interventions: ‘any intervention including two or more components.’ They refer to that theoretically would a single intervention address one of many barriers to a change of behaviour in healthcare

professionals, while multifaceted interventions would target several barriers to change. To our understanding, this assumption indicates that interventions are primarily focused on individuals (and their behaviours). Harvey and Kitson,² we understand, suggest that the more complex the context, the more multifaceted the implementation strategies need to be, to ensure tailored interventions to encompass and address the barriers and facilitating factors. Presumably, one’s implementation approach is dependent on whether one believes a single component intervention can achieve any change, or not. Accordingly, if one suggests that the individual is part of a certain context, and that context is part of a wider spectrum that influences the implementation of knowledge, would a single-component intervention still be appropriate – or is there really such a thing as a single component intervention?

In a number of recent intervention studies in knowledge implementation, both pilots and large projects, in Sweden, across Europe and in Vietnam, we have had reasons to consider and reconsider what we depict as single and multifaceted interventions. For example, in two pilot studies we have tested an intervention aiming to support managers in leading the implementation of evidence-based guidelines [manuscripts in progress]. Based on evidence, our experience as managers, and experience of mentoring leaders, we believed that in order to create and sustain healthcare organisations that are

responsive to change, managers need to embrace relational, structural and change-oriented behaviours.³ Further, we hypothesised that for those managers who have already incorporated these behaviours into their work we could sustain their conduct, while for those who had not we could support them to embrace these behaviours by emphasising their importance. Based on Squires et al¹ definition of a single-component intervention aiming to overcome one barrier, one could argue that this is a single intervention, focused on one barrier, that is, the lack of such comprehension among managers. However, we considered that the managers act in relation to many factors, such as their staff, their own managers, the assignment of their healthcare unit – which influences what patients or clients that the staff and managers themselves engage with – and the location of the healthcare setting, as well as the inner and outer healthcare organisation. Thus, not only did we include a theoretical leadership model in our intervention, but also theory on critical social science concepts such as consciousness-raising, identifying barriers and support, and self-reflection,⁴ presented in a series of didactic and interactive workshops.⁵ Moreover, also guided by the Promoting Action on Research Implementation in Health Services framework^{6,7} we suggested that any effective knowledge implementation would be a result of a successful relation between:

- the evidence proposed for implementation (national guidelines on rehabilitation for patients post-stroke, and oral care for frail older people, respectively),
- the context where these guidelines were to be implemented (rehabilitation in primary care/outpatient care, and long-term care of older people, respectively), and
- the way implementation was facilitated.

Given this example, one could argue that we delivered a single-component intervention (workshops focusing one barrier in the individual managers), or a multifaceted intervention (given the number of aspects framing the intervention). In the course of the intervention, we found the managers took different routes as to what they focused on, and how they appraised their role in promoting the implementation of guidelines through reflecting on and potentially changing their own behaviours. Similarly, recognising the need for tailored interventions, professionals delivering the intervention to the managers were flexible to things that occurred and issues that were raised in the workshops. Thus, the tailoring of the intervention was a process that influenced the intervention underway. In retrospect, we can describe what occurred and why (or why not), but only because we have set aside considerable resources to capture the process of the pilot interventions.

In another study, performed in Vietnam between 2008 and 2011, we have identified a facilitation intervention in multistakeholder community groups that worked in terms of substantially decreasing neonatal mortality.⁸ Similar to our previous example, this intervention could also be characterised as a single component: facilitation of multistakeholder community groups. However, the efforts and activities of these groups to reduce neonatal mortality would have to be characterised as nothing but single. Instead, in the intervention communes, a number of different problems related to maternal and neonatal health

were identified using the Plan, Do, Study, Act (PDSA)-cycle and various actions were taken to influence these problems. Again, in labelling our study, we could say that it focused on one barrier (that is communication between stakeholders) – or we could say that it was a multifaceted intervention, including, for example, both facilitators and multiprofessional stakeholder teams identifying and attending to barriers identified in their local community. As we are still unpacking the details of which mechanisms interacted for the change to take place – a time-consuming and demanding yet highly interesting and much needed endeavour (eg, Eriksson et al⁹ and additional manuscripts in progress) – we are making progress in understanding the relationship between which aspects the intervention was planned to do, and what actually happened. Given our experiences, it would be interesting to know whether or not the interventions assessed by Squires et al¹ were genuinely single-component, or perhaps categorised as single due to a lack of careful attention to its structure, delivery, and/or way of working.

For this purpose, in our studies, we have considered the potentials of process evaluation and realist evaluation. Process evaluation, as suggested by Steckler and Linnan,¹⁰ has provided a framework for data collection as well as for analysis. This has also been the case for realist evaluation, as proposed by Pawson.¹¹ At this point, we consider process evaluation to be somewhat more straightforward in terms of how to proceed, while realist evaluation promotes an essential theoretical perspective, reflecting on “what works, for whom, and in what context.” Potentially, combining these two theories and strategies, or allowing for the evaluation approaches to overlap, are approaches beneficial in providing the background needed for meta-analysis of what interventions really are and how they apply. The main purpose of any systematic review, or meta-analysis, is to provide information moving a particular field of science and practice forward. The review by Squires et al¹ does this, although exactly how to apply their findings needs to be put into perspective. We claim that it is not clear-cut what comprises a single or a multifaceted intervention, and as Harvey and Kitson² argue, we would welcome further details of the findings of Squires et al¹ overview, in order for the conclusions to guide researchers, clinicians, and decision-makers in healthcare.

In addition to deciphering whether an intervention is a single component or multifaceted, one also needs to consider how to pursue the application of the intervention in a new context. Here, Harvey and Kitson's editorial proposes a significant function of considering interventions' need of transfer, translation, or transformation. To our understanding, informally phrased, this corresponds to minor, moderate, or major tailoring of an implementation strategy to be successful. Correspondingly, Sundell et al¹² recently suggested that intervention programs, including the evidence supporting the intervention, can demonstrate fidelity, or being adopted or adapted to new settings. We suggest that both sets of concepts elucidate to what extent an implementation intervention or a clinical intervention can be applied with no or minor alterations, or with amendments deliberately made to adopt (or translate) to a new context, or if it requires a more thorough revision of the current intervention. While we have found this applies to the intervention employed to

facilitate implementation, we agree with Sundell et al¹² that the evidence applied also needs to be considered. Again, we would like to recap our leadership intervention as an example: in the case of stroke rehabilitation in primary care, the national guidelines were general, providing limited guidance for the individual health professional in terms of how often, by what means and how the rehabilitation would be performed. Meanwhile, the oral care guidelines were detailed and specific, including guidance on the above perspectives as well as alternative methods in daily practice if needed. For both projects, we included experts on stroke rehabilitation and oral care, respectively, to walk the managers through the guidelines and share their clinical application (apart from implementation experts, who provided guidance on KT). Our preliminary findings show not only different approaches in how the managers perceived and went about in developing an implementation plan for the guidelines of interest, but also that the managers' attitudes and actions regarding the continuum of transfer-translate-transform (or fidelity-adopt-adapt) of the guidelines varied. The evidence itself seemed to influence whether or not the managers, and their staff, incorporated the guidelines as they were or if they revised them (and to what extent), but more importantly, the context (mainly the culture and leadership of each unit) determined if and how the guidelines were dealt with. Thus, not only the contextual factors influenced what might have been suggested to be a single-component or multifaceted intervention, but the evidence itself also influenced how the implementation strategy was recognised and carried through. This brings us back to our core question: how single are so-called single component interventions, and what is indeed a multifaceted intervention?

Acknowledging the overview of Squires et al¹ and the editorial by Harvey and Kitson,² we suggest there is a need for progress in terms of unpacking what the interventions are in implementation science, and whether the dichotomy of single versus multifaceted interventions really is helpful in that enterprise. We wish to see future studies not only positioning themselves as using single or multifaceted interventions but also providing more extensive descriptions of the actions taken. Apart from presenting the activities carried out, what happened due to these activities, and why, should be described. Further, details on additional influence would be helpful, along with in what particular context interventions worked – or not. This would provide a more authentic picture of implementation interventions, offering better opportunities to replicate successful interventions. Further, to be fair and square, more thorough details would also propose a better understanding of what are the real core components of implementation strategies that work – that is, that facilitate the successful implementation of knowledge into practice.

Ethical issues

Not applicable.

Competing interests

Authors declare that they have no competing interests.

Authors' contributions

ACE and LW conceptualised the content of the paper; ACE prepared and edited drafts; and ACE and LW agreed the final version.

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