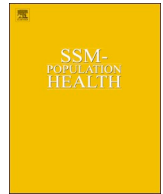




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Commentary

Response to the commentary “to the bone”

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Our aim in publishing this article (“I wanted a skeleton ... they brought a prince”: A qualitative investigation of factors mediating the implementation of a Performance Based Incentive program in Malawi) was to spark conversations among the community of scholars, implementers and stakeholders engaged in performance-based financing interventions, and to urge that this community look beyond outcome-based research in favor of also considering process. We are therefore elated to see this vigorous commentary from Perez et al. whose efforts dovetail with our own.

We begin by thanking the authors for highlighting that our work is “scientifically sound and interesting”. We note three substantive points conveyed in Perez et al.'s commentary, which we present below along with our response.

The first thrust of Perez et al.'s commentary hinges on their view that scientific discourse on implementation fidelity is unwarranted in the absence of outcome data. The relevance of process data, in Perez et al.'s view, is to be appraised in relation to outcome data. We see merit in this argument. We have even followed this approach in other studies (De Allegri, Bertone, McMahon, Chare, & Robyn, 2018), as Perez et al. highlighted. In this study, however, we decided to take a different tack. We view learning from implementation as insightful and essential in its own right, especially when a program is new, highly complex and there is a concrete need to feed information back quickly. We emphasize that this decision does not preclude parallel or later examination of heterogeneity in program performance, drawing from multiple streams of data. That too is a valuable undertaking, but we contest the notion that a dissemination of process data is contingent upon presentation of outcome data, or that it is misguided to draw upon existing fidelity frameworks if one is not simultaneously presenting outcome data.

Second, Perez et al. argue that we have not adequately drawn upon recent frameworks including, primarily, Pérez, Stuyft, Van der Zabala & Lefèvre et al. (2016) but also Von Thiele Schwarz, Hasson & Lindfors (2015). We thank Perez et al. for drawing attention to these works, which build on Carroll and Hasson's work on fidelity and moderating factors, as our work does. In the interest of furthering Perez et al.'s intention that scholars “must draw on all contemporary contributions and collective reflection in order to better comprehend the challenges

of implementing complex effective interventions,” we also note that several more scholars have presented insights on proposed adaptations to the original framework including Chaturvedi, Upadhyay, De Costa, & Raven, 2015 Apr 1, Masterson-Algar, Burton, Rycroft-Malone, Sackley, & Walker, 2014 Aug and Fortington et al., 2015 to name a few. Carroll's work is seminal, has been cited more than 900 times, and has served as its own case study on academic research impact (Carroll, 2016). In light of this, while we appreciate Perez et al.'s sentiment, we do not share the view that it is feasible or necessary to draw on *all* contemporary contributions or collective reflections in a given field before presenting one's own empirical evidence.

Third, Perez et al. take issue with the fact that we shifted complexity of the intervention to serve as a standalone moderator rather than including it as a component of comprehensiveness of the program description, as Carroll did in the original framework. We are aware of the broader literature on diffusion of innovations (Gautier, Tosun, De Allegri, & Ridde, 2018) and Hasson and Carroll's description of complexity. Our decision to emphasize complexity as a key moderating factor was driven by the empirical findings, which underscored the central role the nature of the intervention itself played in shaping its implementation. We drew complexity out as its own moderator to appraise it in relation to the gap between what those implementing programs think they are capable of or their subjective view of the program (pre- or early-intervention) versus what they are ultimately confident doing (amid an intervention). We found that the SSDI-PBI program was well articulated and clearly conveyed to those who would enact the program. Furthermore, the program was not perceived as especially complex at program outset. However, actual implementation proved challenging largely due to both the complexity of the intervention, but also the lack of training in relation to financing and forecasting among those enacting the program. We had initially intertwined this portion of the results with moderator 3 (participant engagement and expectations), but there too the pre-eminent importance of complexity seemed to be masked. We maintain our decision to tease out complexity based on our findings, but invite further refinement from future scholars.

Perez et al. make other assertions that are less substantive. First, they highlight recent literature that argues against performance-based

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financing generally. It remains our intention not to use our article or this commentary as a vehicle to further arguments either for or against this health financing approach. Second, Perez et al. state that, in our article, we describe Carroll's framework as primarily focusing on moderating factors. Perez et al.'s perception reflects a misinterpretation of our writing. We wish to reiterate that we are aware of how Carroll's fidelity framework focuses on core components (content, coverage, frequency and duration) while also emphasizing moderators. To be clear, we used Carroll (and then Hasson's) framework as a mechanism to guide how we would approach a process evaluation. In the course of data collection, moderators emerged as highly salient and thus formed the basis of this paper. While moderators represent the thrust of our results, they are not the primary focus of Carroll's framework. Perez et al. highlight a fear that our approach "could lead, at best, to a reductionist use of the framework" or that it could "mislead researchers." This was not our intention nor do we share this expectation.

In sum, we again thank the authors for the constructive critique of our work. We commend them for their work, which like our own attempts to advance discussions regarding fidelity of implementation and the role of moderators.

Ethical approval statement

This study is original, has not been submitted for review to other journals, has been approved by all authors, and the study has received ethical approval from the College of Medicine in Malawi (ethical

approval code: P.09/15/1803) and the University of Heidelberg in Germany (ethical approval code: S-385/2015). The authors declare no competing interests.

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