Reviewer's report

Title: Explaining the effects of a randomised controlled trial to implement evidence-based diabetes care: a theory-based process evaluation.

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Reviewer: Kate Lorig

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General comments

First the authors are to be congratulated for undertaking the examination of a theoretical framework as an explanation of success of a clinical trial. More such work should be attempted. However, as I am sure the authors would agree, it is better if interventions were theory based before they were offered.

I have three major concerns about this paper.

1. Because the process evaluation was undertaken after the intervention was complete one can not talk about prediction. In this case we know that behavior had been changed before attitudes were measured. What we do not know is if the behavior predicted the attitude, or the attitude predicted the behavior or if there was a third factor such as small area variation that effected both.

There is a large literature on small area variation. This came to mind as I was reading the article as we know that practice patterns of physicians is similar within geographic areas and differs greatly across area. This might be one reason that small practices differed from large practices. It might also be that attitude formation also differs in different areas. I am not suggesting that this is the case here but offering this as one possible alternative. The real issue is that there is not enough data to talk about prediction. The best one can suggest is association. It may be that the attitudes differed at the beginning of the intervention and never changed. There is an assumption here that attitudes were the same in both groups before the intervention.

2. The article is very difficult to read. It is full of psychological jargon and even when terms are defined, they are defined with more jargon. For example attitudinally-driven intentions, normatively-driven intentions, attitudes, subjective norms perceived behavioural control, intrinsically motivated, externally controlled, enacted behavior and intentional regulation all need to be defined. Reasons need to be given for doing direct and indirect measurement and again these terms need to be carefully defined and since assumptions are mentioned I would like to know more about what these assumptions are. All in all one would have to have a very strong psychological academic background and good familiarity with Ajzen to fully understand this article. Writing everything in the active voice would also be helpful.
3. The tables are very difficult to understand and I am not sure that several of them are necessary. Since you are not showing us the scales you developed nor are they likely to be useful to others, you might do away with tables 2 and 3. It is probably enough to say something about the coefficient alphas in the text. This paper is really not about scale formation. Having said this, I really wonder about the scales. It is my feeling that some of the items may be redundant, not within scales but across scales, and you might think of doing something like multi trait scaling to check on this.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.