Author's response to reviews

Title: Supported local implementation of clinical guidelines in psychiatry: A two-year follow-up

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Author's response to reviews: see over
Concerning the manuscript:  MS: 5176021252147024 Supported local implementation of clinical guidelines in psychiatry: a two-year follow-up

Dear Mr Aarons,

We are pleased that our manuscript have been peer reviewed and been considered for publication in Implementations Science.

We agree with the reviewers that the experimental condition was performed at the clinical level. Due to this, the analyses were made at this level. The study is based on 3 clinics for each guideline and 2 were aggregated in this analysis. Figure 2 and 3 shows that the clinics were implementations were done showed a similar pattern. They were all clearly significantly different from the control clinics, which motivated the aggregation of the implementations clinics.

We are grateful that the reviewers have pointed out methodological concerns that must be addressed in the manuscript. We have taken each question into account and have addressed the comments in the revised manuscript. A detailed response is provided in this cover letter.

We have now more clearly described the selection of intervention and control clinics in the manuscript, see page 5 in the methods section. The two departments who declined participation did not differ from the ones that accepted participation in terms of organization of care, personnel resources and population, due to uniform contract with the Stockholm county council. The random selection of implementation and control clinics have now been clarified in the manuscript, please see answer to Mr Raghavan, question number 6.

Questions were raised concerning our study design. We suggest that we simply describe in details how the selection of clinics and assignment to intervention and control arms were performed, and refrain from using a label.

We have revised our manuscript and are now consistently using statement that reviews were conducted before implementation, and after 6, 12 and 24 months. Furthermore, a typographical error in table 1 has been corrected.
Reviewer: Ramesh Raghavan

1. The reviewer remarked that we do not clearly delineate the difference between training and implementation. We have revised the manuscript and tried to correct the terminology. Training as a part of implementation is now replaced with educational interventions.

2. We see implementation as a complex intervention and described our implementation as an active supported implementation process. We agree that the term process could mislead the readers and have now revised the manuscript in order to avoid this misunderstanding, for example see the abstract page 2, paragraph 2 and the aim of the study at page 5, see also answer 1 concerning the terminology.

3. The reviewer recommended us to consider and expand the literature review of implementation. The litterateur review of implementation technologies is now extended and new references are added, both in the background section, page 4 and 5, method second, page 7 and in the discussion, page 13-15.

4. We are aware that the terminology and use of standards, indicators and practice parameters could be a challenge to delineate. Indicators are explicitly defined and measurable items, which act as building blocks in the assessment of care. They are in the literature described as statement about structure, process or outcomes of care. Indicators are different from standards. Standard illustrate the level of compliance with criterion or indicator. We have added this in the discussion section, first paragraph at page 16, in order to better orient the readers.

5. We agree with the reviewer that the section about Stockholm county’s implementation could be moved to the methods section which we now have done, see methods section, page 5.

6. There six psychiatric departments in the county when we started the study. The six departments had both in- and outpatients clinics. In Stockholm, outpatient treatment is provided almost only by clinics in the public sector. After the departments were recruited, they were randomly assigned in an intervention group or a control group. We have now more clearly described the selection of intervention and control clinics in the manuscript, see page 6 in the methods section. The two departments who declined participation did not differ from the ones that accepted participation in terms of organization of care, personnel resources and population, due to uniform contract with the Stockholm county council. This has now been added in the methods section at page 6.
7. We have moved the text about quality indicators on page 10 in to a table, in order to give the readers a better overview, see appendix table 3 at page 24.

8. Trained abstractors examined the medical records and they were trained before the first audit. Inter-rater reliability was assessed by a random replicate sample of records and Cohen’s Kappa were calculated to 0.92-1.0. The Swedish National Constitution for health care service regulates care plan and the content of a care plan. Furthermore, we used the same audit tool with clear definitions at all intervention and control clinics. We have used quality indicators in table 3 in order to operationalize the guidelines requirements of depression care, furthermore see table 3.

9. The aim with the study was to follow the implementation of the clinical guidelines. The local implementation teams goal was to increase the compliance to the guidelines and also introduce new methods, clinical routine etc if there was a gap between care described in the guidelines and ongoing practice. On the basis of this analyse, a series of seminars was conducted to introduce the guidelines according to the identified needs. All clinics implemented the same guidelines, but the educational support varied according to the baseline compliance measured by the quality indicators. Please see method section, page 7 and the discussion. Each implementation team has achieved improved outcomes around its selected clinical topics and goal. Thus the set of guidelines and criteria for compliance did not vary between the clinics.

10. In our manuscript a typing error has occurred, we meant adaptation of care defined by clinical care and not “adaption”, and apologize for this misunderstanding. We have in our discussion section addressed the need to adapt implementation efforts to local circumstances.

11. Patient records from adult men and women, who had an ICD-10 or DSM-IV diagnoses of depression were eligible for inclusion in the study on the implementation of the clinical guidelines for depression. For the implementation of the clinical guidelines for suicide attempters the inclusion criteria were patient records from adult men and women, who appraised after a suicide attempt. We have now added these inclusion criteria in the manuscript and random selection, page 8, second paragraph. We have also clarified what the criteria for quality indicators were in the method section, page 10, first paragraph and in table 3

For the data collection that took place before implementation, instructions were to collect 60 records from each clinic (intervention and control). (Our pilot study is published in BMC Psychiatry 2008). To get more power at the long-term follow-up we collected 120 medical records at each data collection during the follow-up period. For the first data collection one of our control clinics for depression aggregated 61
records and at the six months follow-up period for suicide guidelines 121 records were collected. We didn’t exclude this extra records, do to that they had been used in the feedback during the implementation period.

Medical records that fulfilled the inclusion criteria from specific dates were randomly selected from each clinic, identified through the administration system. We have clarified the description of the data collection in the manuscript, see method section, page 8, second paragraph and the exact figures are now presented in table 1 and 2, page 22-23.

12. Please see our answer to question 11 about the data collection. See also table 1 and 2 in the appendix, the tables give the readers an overview of the included patients (n).

13. We have considered the reviewers suggestion how to analyse our data. Unfortunately we cannot evaluate the 0s against the 2s due to loss of important aspects of improvement. If we evaluated 0 against 2 we would lose a great deal of information. Additionally, there would be problem in power. In order not to loose information we have now used mean values. Mean values follows an approach chosen by Lindén et al 2008. We have re-written our results tables in the result section, please see appendix at page 27 and 28.

14+15+16. The study focuses on to what extent the staff in the six clinics followed the instructions of clinical guidelines for two patient groups, depression and suicide attempt, and changed their clinical practice accordingly. The adherence to guidelines is assessed based on randomly selected patient records. Each patient encounter is unique and triggers a clinical response, the appropriateness of which is measured with a comparison to guideline criteria. The clinical status of patients as such is not the object of the study, neither is it a follow-up of patients. Due to the sampling strategy individual patients vary at each measurement point. There is no reason to believe that the patient populations of the clinics changed to any considerable extent during the 24-month study period. Stockholm county runs a comprehensive healthcare system and psychiatry services are organised on a geographical basis. Patients use their local service; competing private service provision is marginal. Caseloads have been stable. According to public health reports no significant epidemiological changes in psychiatric morbidity have been observed during the two years in question.

We have added an analysis of clinic level and the results are present in figure 1 and 2. Odds ratios are now replaced with mean values and t-test.
We have now re-done the analysis and compare intervention clinics with control clinics since we do not believe that the mechanisms are fundamentally different across conditions.

17. We have now added in the discussion section why we think adaption of these guidelines is a good thing, see discussion page 15, 16 and 17.

18. Furthermore we have now fleshed out our discussion section in several directions, see the discussion section.

19. We have revised our figures of the total score for quality indicators previously there were three figures they are now reduced to two. All X-axis are provided with labels.
Reviewer: Lawrence A Palinkas

1. We agree that the experimental condition was performed at the clinical level. Due to this the analyses were made at this level. The study was based on 3 clinics for each guideline and 2 were aggregated in the analysis. Figure 2 and 3 shows that the clinics were implementations were done showed a similar pattern. They were all clearly significantly different from the control clinics, which motivated the aggregation of the implementations clinics. Even if this might have been underpowered for testing of the hypothesis the results showed a clear statistical significance in a vast majority of the quality indicators. However, we fully agree with the reviewer that there is a need for further studies to confirm this. This is added in the discussion.

2. The reviewer suggested us to describe the theoretical framework. Our ambitions have not initially been to implement psychiatric guidelines according to a specific theoretical framework, but based on the literature regarding change of clinical practice. In the method we now shortly address the organizational learning theory, page 7, last paragraph. We have reflected on this approach for groups to enhance learning in the discussion, see discussion, page 15, first paragraph.

3. Today there is a lack of studies in implementation of guidelines for psychiatric disorders in psychiatric settings. We have now addressed this in the discussion, page 16, and second paragraph. This motivated us to conduct this study. Our study it is not designed to examine the extent to which clinical guidelines implementation differs from other medical specialties. Psychiatry differs from other medical specialties not only because it is a rather young science, there is also a history of philosophical conflicts regarding psychiatric treatments. Historically, there has been an opposition against studies of efficiency of psychiatric treatment.

4. The random selection of implementation and control clinics have now been clarified in the manuscript, please see answer to Mr Raghavan, question number 6.

5. Also, see our answer to Mr Raghavan, question number 10 concerned the use of “adaption” of care.

6. Regarding the dichotomization of the quality score we now present the quality indicators in table 3. We have added the criteria for the three different scores. For example; indicator for standardized rating scale during treatment: If the patient have been re-screened within two weeks, and re-screened every visits the criteria of the recommended guidelines were met, occasionally re-screening, without re-screening after two-weeks were assessed as the criteria partially met.

We hope to hear from you as soon as possible.

Stockholm 22 of January 2009

With best wishes,
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