Author’s response to reviews

Title: Doctors' opinion on the contribution of coordination mechanisms to improving clinical coordination between primary and outpatient secondary care in the Catalan national health system

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Author’s response to reviews:

Dr. Karina Aase
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Dear Dr. Karina Aase

We are glad to send you a new version of the manuscript “Doctors' opinion on the contribution of coordination mechanisms to improving clinical coordination between primary and outpatient secondary care in the Catalan national health system”, which contains the changes suggested by the referees.
All referees’ comments together with the corresponding changes in the manuscript are indicated here as well as highlighted in yellow in the manuscript. We also give a rationale for each change, point by point. We would like to thank the three reviewers for their thoughtful comments.

With regard to the editor’s comment

Please make sure that you conduct a thorough professional language editing for grammar and clarity before resubmission of your revised manuscript.

The paper was copyedited by a native-English speaking professional translator with scientific writing expertise. It has been now checked again by a native speaker.

With regard to the observations and recommendations from Ilana Graetz (Reviewer 1)

1. Review carefully for grammar and clarity.

The paper was copyedited by a native-English speaking professional translator with scientific writing expertise. It has been now checked again by a native speaker.

2. Background - the distinction made between difference types of mechanisms (programming, feedback, and standardization) introduced in the background is not clear and is not followed-through in the results (Tables 2 & 3). Consider re-thinking a framework to categorize the various mechanisms studied, and then organize results using the same framework.

Following the recommendation of the reviewer, additional information on the framework used, which categorizes coordination mechanisms (including the differences between the different types), has been added in the background section. We have organized the results (both in the text and tables) following this categorization.

3. The authors state in the intro and discussion that there is limited research on provider's perspective on the how health IT affects care coordination, but fail to cite several relevant
published papers. Authors should conduct a more thorough review of the literature, and consider citing some of the following papers:


We have revised the text to provide a more accurate description of the available evidence and added some of these citations.

4. Methods - Clarify if study included all networks in Catalan.

The study included three networks of the national health system Catalonia selected to represent the diversity of management models in the Catalan national health system. We have clarified this in the methods section.

5. Setting - Describe use of EMR and health information exchanges in the region.
Following the reviewer’s suggestion, we have included additional information of the existence of coordination mechanisms, including EMR, in the selected networks.

6. Methods - Specify how many doctors were contacted? Were all eligible doctors contacted and if not, how were they selected? What percent agreed to participate? Who conducted the interviews? Was there a reason for the year long gap between interviews in the different regions? How many individuals coded the data? Were interviews recorded and transcribed?

We revised the methods section and added the details as requested by the reviewer.

How many doctors were contacted? Fifty doctors were contacted by their institutions, via email or telephone, and invited to participate in the study.

Were all eligible doctors contacted and if not, how were they selected? The selection of doctors was made taking into account, first, the inclusion criteria (a minimum of 1.5 years of work experience in the organization), and second, a series of variation criteria (age, sex and speciality for secondary care doctors) in order to take in a broad set of experiences. The sample was selected in a sequential way, so that profiles that emerged as relevant in the initial interviews were also included in the study.

Who conducted the interviews? All interviews were conducted by the first author; an anthropologist and pharmacist with good knowledge of qualitative methods, the research topic and the context. The first author worked in close collaboration with the second and last authors.

Was there a reason for the year long gap between interviews in the different regions? There were two main reasons for the time gap. Firstly, we were conducting two parallel studies in the networks: the qualitative study presented in this paper and a quantitative study, aiming at designing, validating and applying care coordination indicators between care levels [1]. The latter required a greater than expected dedication, thus delaying the field work of the qualitative study. Secondly, we performed a preliminary comprehensive analysis of the qualitative data obtained in the first study area in order to detect potential aspects of improvement to be considered in the other two areas. As a consequence, there was a long period between the two phases of the field work. We have included a reflection of this issue in the study limitations.
How many individuals coded the data? The first author was responsible for the coding and preliminary analysis and worked in close collaboration with the second and last author, especially in the interpretation and confirmation phase.

Were interviews recorded and transcribed? Yes, all the interviews were recorded and literally transcribed.

7. Results - Start with a brief description of the respondents interviewed.

As suggested, we have introduced a brief description of the characteristics of the respondents. However, we opted for introducing this description in the methods section, since the characteristics of the interviewed doctors are the consequence of an intentional and sequential sampling strategy (in qualitative research the characteristics of the sample are part of the methods rather than a part of the results of the study).

8. Define coordination mechanisms and provide examples or quotes to illustrate when relevant

Topics approached in the interviews covered the identification and opinion on the mechanisms they perceived that contribute to improve clinical coordination between primary and secondary care, as well as factors (enablers and barriers) of the use of these mechanisms. However, in order to improve the understanding of mechanisms, we have included theoretical definitions of coordination mechanisms implemented in the studied networks (in Appendix 1).

9. Table 1 - consider reformatting to make it easier to follow, list characteristics for all participants.

We have reformatted the table to make the reading easier.

10. Consider moving the current Table 1 as is to the appendix.

As recommended by the reviewer, we have moved Table 1 to the appendix (current Appendix 1).
11. Include interview guide in the appendix.

We employed a flexible topic guide, consisting of four broad aspects (topics) that aimed at exploring doctors’ opinions on and experiences of the contribution of mechanisms to improving clinical coordination. We have included the list of topics in Appendix 2.

With regard to the observations and recommendations of Patty de Almeida (Reviewer 2)

1. (…) En la introducción sugiero una mayor profundización sobre el sistema catalán, principalmente para el lector no familiarizado y también sobre los tres casos, en la metodología.

As suggested by the reviewer, we have added more information on the Catalan health system to facilitate the understanding of the context of study. We have also expanded the description of study networks in the methods section and introduced a new table (Table 1) with a description of the healthcare networks.

2. En la discusión y conclusión, sugiero retomar los resultados a la luz de los casos, señalando posibles influencias de los diferentes modelos de organización y gestión de las redes de salud en la utilización de los mecanismos de coordinación clínica.

We have included a new paragraph in the Discussion Section (paragraph 2) where we discussed that, despite the fact that the three healthcare networks are managed by different providers and represent different management models, we detected few differences in the implementation of coordination mechanisms. This result could be a consequence of the fact that all three networks form part of a national health system, and thus share many of the contextual factors that guide the implementation of coordination mechanisms: the same care model based on primary care and a similar system of funding and incentives for professionals and organizations.

With regard to the observations and recommendations of Martin Charns (Reviewer 3)

1. The framework you are using originated with March and Simon (1958), was further developed by Van de Ven and Delbecq (1974) and Mintzberg (1979). I suggest citing this history of development.

We have included a brief description of the historical development of the conceptual framework employed in this study, as suggested by the reviewer.
2. We used this framework in a large mixed-methods study of surgical services in the US Department of Veterans Affairs, and found a strong relationship between risk-adjusted surgical morbidity and coordination among surgeons, anesthesiologists and nurses. In a set of papers we do report physicians' and others' opinions of coordination and factors that affect coordination. In addition to appropriately recognizing this work, you should alter the statement on lines 95-97. "…no previous research has explored the contribution of the set of available mechanisms to clinical coordination from the point of view of professionals," which is incorrect.

After rereading the introduction, we have noticed that there were some inaccuracies in the text that we have now solved.

Firstly, in the third paragraph of the introduction section, it was not clear that we were referring to mechanisms of coordination across primary and secondary care. We agree with the reviewer that if we extend the scope of the study additional relevant research would be necessary. Therefore, we considered more appropriate to focus this section on the scope of our research, i.e., clinical coordination across primary and outpatient secondary care.

Secondly, in the fourth paragraph on the introduction section, when we say “(…) no previous research has explored the contribution of the set of available mechanisms to clinical coordination from the point of view of professionals”, we referred to research in the context of the Catalan healthcare system. As it was not clear, we have modified the sentence: “In the context of the Catalan healthcare system, evaluations of the use of introduced mechanisms are scarce [28-30], and no previous research has explored the contribution of the set of available mechanisms to clinical coordination across primary and secondary care from the point of view of professionals.”

3. You note that "healthcare networks were selected to represent the diversity of management models" (lines 108-109). This indicates that this diversity potentially is important, but I cannot tell from your findings and discussion whether the different management models and organizational arrangements are important factors affecting coordination. Can you make clear to the reader whether these differences among the three networks are or are not important in terms of their effects on coordination? To do so I suggest a) Highlight the organizational differences in a table that you describe in study sample, b) Discuss the findings that are presented in table 2 to indicate where there are similar findings among all three networks and where there are different
findings in different networks and then how that might relate to organizational differences among the three networks.

As proposed by the reviewer, we have added 1) additional information about the healthcare networks, both in the text and in Table 1; and 2) a new paragraph in the discussion section (paragraph 2), where we reflect on the similar distribution of mechanisms identified in the three healthcare networks. Differences, when existent, are discussed specifically when we treat mechanisms individually.

4. Some of what you call mutual adjustment may in fact be group coordination. Mutual adjustment is strictly between two people. Group coordination is among more than two. The conferences sound more like group coordination than mutual adjustment.

In our framework, we use the definition of mutual adjustment as those processes of care coordination in which coordination is achieved through direct contact between two or more individuals in order to solve the problem at the same level at which the information was generated [2, 3]. To avoid confusion, we have included this definition in the introduction.

5. The first time you use the term "levels" make it clear that this is referring to primary care and secondary (specialty) care. There is nothing incorrect here, but it would help the reader to be reminded about what "levels" refers to.

We have included this clarification.

6. When you discuss the joint clinical case conferences (lines 179-190) you indicate that these "contribute to improving the training of primary care doctors." From the context, I assume that these are not part of a formal training program for doctors-in-training, i.e. residents. Please clarify this.

As the reviewer assumes, joint clinical case conferences are not part of a formal training program. To avoid confusion, we included a clarification in the text.
7. Update reference 3 to the Longest and Young chapter on Coordination in Shortell and Kaluzny to the newer version (Charns and Young, "Organization Design and Coordination" in Burns et al, Shortell and Kaluzny's Health Care Management (2011))

The reference has been updated.

8. Lines 67-68 refer to "vertical information system." I suggest deleting "vertical." Ten to 20 years ago (your references are from that period), information systems were primarily viewed in the organizational literature as augmenting vertical information flows and allowing the organization's hierarchy to work more effectively. They obviously have broader application today.

Following the reviewer’s suggestion, the term “vertical” has been removed and replaced by “shared information system”.

9. Since you discuss the importance of interpersonal relationships, I suggest adding a summary of Gittell's findings on relational coordination at the end of the discussion. I have included references.

As proposed by the reviewer, we have introduced the relational coordination framework in our discussion since our results are consistent with those proposed by Gittell.

Bibliography


2. Vargas I, Mogollón-Pérez AS, De Paepe P, da Silva MRF, Unger JP, Vázquez ML: Do existing mechanisms contribute to improvements in care coordination across levels of
care in health services networks? Opinions of health personnel in Colombia and Brazil. BMC Health Serv Res. 2015, 15:213.