Author's response to reviews

Title: Comparing the implementation of team approaches for improving diabetes care in community health centers

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Version: 3 Date: 8 October 2014

Author's response to reviews: see over
October 8, 2014

Dr. Christopher Morrey, Executive Editor
BMC Health Services Research
BioMed Central
236 Gray's Inn Road
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United Kingdom

Reference: Revision MS: 1943750320127326

Dear Dr. Morrey,

Thank you very much for inviting us to submit a revision of our paper “Comparing the implementation of team approaches for improving diabetes care in community health centers” - MS: 1943750320127326.

The comments of the reviewers were very helpful in provided our revised manuscript. We have listed a point by point response to the comments of the reviewers below. I hope you will consider our revised manuscript for publication in BMC Health Services Research.

Sincerely,

[Signature]

Hector P. Rodriguez
University of California, Berkeley
Reviewer 1

1. **Study purpose/objective:** The purpose of the study needs to be clarified and the objectives clearly described so consistency and uniformity are improved throughout the article

We thank the reviewer for noticing the discrepancy in the objectives. Our study was embedded in a comparative effectiveness study, and we agree that our previous introduction was not clear about the purpose of our current paper within the larger project. Since the Methods section already describes the context of the effectiveness study we deleted this context from the Introduction. No further reference is made in the paper about the effectiveness of the team approaches in improving quality and/or outcomes.

The objective in the Introduction is now similar to the objective in the Abstract:

“The objective of our study was to clarify implementation processes and experiences of integrating office-based MA panel management and CHW community-based management into routine care for diabetic patients”

2. **Study/clinic settings:** Specify the geographic locations/settings of the clinics to understand community factors important in implementation of the described models in other CHCs.

We have added a table in the manuscript combining the settings of the clinics, workflow of the team collaboration and demographics of patients. The new table is presented at the end of this response and replaces Box 1.

3. **Patient demographics:** It is important to further describe the demographics of patients described by the CHCs in the setting section

See comment # 2. Patient demographics are now provided in table.

4. **Pre-implementation survey:** Additional detail of the pre-implementation survey regarding aspects it assesses and the data gathered should be provided

We added the following clarification to the description of the survey:

“The survey was administered to all primary care clinicians and staff and included 22 items related to care team functioning, quality emphasis, leadership readiness for change, team stability and norms, team harmony and interdependence, overload and chaos, staff readiness for change, general attitudes toward teamwork. These items are all from previously validated practice climate instruments, including the Team Diagnostic Survey (TDS); Attitudes Toward Health Care Team Scale; Team Climate Inventory (TCI); Minimizing Error, Maximizing Outcome (MEMO); AHRQ TeamSTEPPS Teamwork Perceptions Questionnaire (AHRQ T-TPQ); TransforMed Clinician Staff Questionnaire (TransforMed CSQ); AHRQ Medical Office Survey on Patient Safety Culture; and Organizational Readiness to Change Assessment (ORCA). Each item included multiple statements. An example of a statement related to care team functioning: “Everyone of your team is motivated to have the team succeed”. The statements were scored on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”.”

5. **Site “structural capabilities” assessment:** Additional detail regarding the structural capabilities assessment needs to be provided

We added the following clarification to the main text:

“Previous analyses showed that the availability of structural capabilities may benefit practices serving patients from socio-demographically vulnerable neighborhoods. The structural capabilities survey included 34 items related to clinic characteristics falling in four domains: (1) patient assistance and reminders (e.g. assistance of patient self-
management); (2) culture of quality (e.g. frequent meetings on quality performance; (3) enhanced access (e.g. multilingual clinicians; and (4) Electronic Health Records (EHR) (i.e. frequently used, multifunctional EHRs used during clinical care).

6. **Interview guides:** Additional detail needs to be provided regarding the content of the interview guides. Several sentences should be added to the tailoring.

We added the following text to the description of the interview guide:

“The interview guide began with general questions about the key informant’s background and his/her position, followed by specific questions about the specific role of the interviewee in managing patients with diabetes, composition of their care team, and the use of specific strategies to better coordinate and integrate the care of patients with diabetes”

In describing the tailoring to the specific roles of the key informant categories, we elaborate:

“We asked practice coordinators about strategies at the clinic level in improving the care for patients with diabetes; clinicians were asked about their responsibility in improving the care for patients with diabetes, other health professionals were asked about their role in the multidisciplinary team. An additional module was used for the MA and CHW roles to assess the implementation of health coaching activities and tailoring of care to cultural diversity of patients”

7. **Qualitative data analysis display:** The results from the analysis of the qualitative data need to be graphically displayed using systematic diagrams illustrating major findings and themes.

We now include a Table 6 summarizing the major interview findings and themes:

<table>
<thead>
<tr>
<th>Health coaching</th>
<th>Practice culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility and latitude of health care teams in panel management and home visits</td>
<td>Team composition of dedicated MA/CHW with collaborating clinicians (vs. rotating MA/CHW)</td>
</tr>
<tr>
<td>Cultural adaptation to target population</td>
<td>Care teams supported by practice climates conducive to facilitating the transition of diabetes self-management support responsibilities to CHW/MArs, warm handoff by clinician and acceptance of patients</td>
</tr>
<tr>
<td></td>
<td>Structural capabilities to stimulate monitoring of diabetes care process and outcomes</td>
</tr>
<tr>
<td></td>
<td>Active support of leadership in MA/CHW health coaching</td>
</tr>
</tbody>
</table>

8. **Triangulation:** It would be helpful if the authors developed a short paragraph explicitly highlighting the triangulated findings.

We added the following text at the end of the Results section (page 17):
“Triangulation of key informant interview and practice climate survey data confirmed the four subthemes in the practice culture domain. Structural capabilities, as ascertained via the survey, may have supported the implementation of health coaching activities regardless of the model used with office-based patient MA panel management or community-based care by CHW. There were no differences between clinics at baseline in terms of care team functioning and organizational readiness for change in the quantitative analysis. This is congruent with our qualitative analysis revealing similar facilitators and barriers to care team implementation for diabetic patients across the clinics.”

9. **Utilization data:** Little utilization data or practice statistics are provided. A simple two column design with cells for each intervention would be straightforward display for this intervention.

We added MA/CHW panel sizes and overall diabetic patients at the clinic in the new **Table 3** to give the reader a sense of the nature and volume of the interventions.

10. **Health coach training and duties:** How were the CHW and MA trained in health coaching?

We added the following information to clarify the training of MA and CHW:

“The MA and CHW participated in a two day training program focusing on their roles in the work flow of managing the pre-visit, visit, post-visit, and between visits of the patients. They were specifically trained in providing appropriate health education and information to patients, to offer counseling and social support, and in self-management and motivational interviewing strategies to stimulate lifestyle changes. After the initial training, technical assistance visits (n=2-3) at each site were conducted by a quality improvement organization in order to support new staff and their care teams in implementing practice changes and modifying workflow to integrate new health coaching and self-management support roles.”
<table>
<thead>
<tr>
<th>Clinic</th>
<th>Setting</th>
<th>Provider Organization</th>
<th>Health coach</th>
<th>Team composition</th>
<th>Panel size (Overall diabetics at clinic)</th>
<th>Main patient population</th>
<th>Workflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Urban</td>
<td>2 clinics with ~5 clinicians serving low-income families</td>
<td>MA</td>
<td>Team of 2 clinicians and 2 MA</td>
<td>119 (139)</td>
<td>Latino</td>
<td>MA panel management based on the Teamlet Model(^1). No home visits. Combining regular MA work with health coaching. MA sees 4 patients per day for health coaching on alternate days.</td>
</tr>
<tr>
<td>2.</td>
<td>Urban</td>
<td>7 clinics with ~50 clinicians serving low-income families</td>
<td>MA</td>
<td>Team of 6 clinicians and 4 MA.</td>
<td>NS (367)</td>
<td>Recent Chinese immigrants</td>
<td>MA works on weekly rotating schedule as health coach. Sees ~12 patients per day typically in post-visits to clinician. No home visits.</td>
</tr>
<tr>
<td>3.</td>
<td>Small community</td>
<td>7 clinics with ~40 clinicians serving low-income families.</td>
<td>CHW</td>
<td>Team of 2 clinicians and 1 CHW</td>
<td>118 (334)</td>
<td>Latino</td>
<td>CHW works mainly office-based via panel management in Teamlet Model. Sees 6-8 patients per day.</td>
</tr>
<tr>
<td>4.</td>
<td>Small community</td>
<td>2 clinics with ~5 clinicians serving low-income families.</td>
<td>CHW</td>
<td>Team of 3 clinicians and 2 CHW</td>
<td>137 (143)</td>
<td>Latino</td>
<td>CHW does office-based visits and post-visits based on Teamlet Model. Started small-scale home visits, planning 3-4 joint visits per day by 2 CHW.</td>
</tr>
<tr>
<td>5.</td>
<td>Suburban</td>
<td>7 clinics with ~40 clinicians serving low-income families.</td>
<td>CHW</td>
<td>Team of 3 clinicians and 1 CHW.</td>
<td>84 (377)</td>
<td>Latino</td>
<td>CHW works community-based with home visits of 25-30 minutes during 4 days per week. One day office-based for follow-up phone calls. Separate from clinic workflow.</td>
</tr>
</tbody>
</table>

MA: Medical Assistant; CHW: Community Health Worker; NS: No Specified Patient Panel

\(^1\)Teamlet Model refers to a small team comprised of a clinician and a MA as “health coach” as an extension of the traditional clinician visit, by introducing visits with MAs to provide chronic disease self-management support.
Reviewer # 2

1. There is rich literature regarding both health care teams and interprofessional collaborative practice. The authors do not reference these literatures nor do they incorporate them into their introduction or discussion of findings.

We thank the reviewer for identifying the limited discussion of the literature on health care teams. In our revised manuscript, we described the importance of the health care team functioning in the introduction section:

“Primary care teams are faced with managing high levels of heterogeneity in tasks and types of patients. The Institute of Medicine identified a set of core principles for high-value team-based health care: shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes\(^\text{10}\). Several models have been developed and implemented to coordinate the activities of health care team members, for which team structure and processes are main components for stimulating teamwork\(^\text{11}\). Bodenheimer proposed a framework for high-performing primary care for achieving the triple aim of health reform—better health, improved patient experience, and more affordable costs\(^\text{12}\).”

In the Discussion section we further elaborated on the importance of team-based care and structural capabilities:

“Bodenheimer\(^\text{12}\) identified four foundational elements for high-performing health care: engaged leadership, data-driven improvement, empanelment, and team-based care. Our findings derived from both quantitative and qualitative data confirm the importance of these elements. A supportive team climate with engaged leadership enabled MAs and CHWs to take responsibility for their health coaching activities. In addition, structural capabilities were important for data-driven improvement for both MA panel management and CHW community-based care.”

2. There is little discussion about health outcomes – including diabetes health outcomes in the study.

We introduced the importance of data-driven improvement based on health outcomes [see comment #1]. Further, we elaborated on the importance of health outcomes in the Discussion section:

“Structural capabilities aimed at the monitoring of health outcomes were available in most clinics, but there was also substantial room for improvement in the adoption and use of these capabilities. Our early implementation interviews did not allow for in-depth evaluation of perceived improvement of health outcomes. Nevertheless, our key informants expected a positive impact of their coaching activities on the health of their patients. They emphasized that such evidence would be necessary for sustaining their team-based health coaching and self-management support efforts for diabetic patients.”

3. Making some reference to why this sort of intervention is important in the light of US health care reform and triple aim is necessary.

We now reference the triple aim program in the Introduction section [see comment # 1]

4. There needs to be some discussion/description of how the “teams” work together. What constituted team work?

We added a paragraph to the Discussion section related to the importance of team functioning:

“A consistent finding in our interviews of MA and CHW health coaches was the importance of a supportive team climate, allowing them to take responsibility for their health coaching activities and to gain trust from patients. This supportive team climate was both related to engaged clinic leadership as well as by warm handoffs clinicians to signal trust in team members’ abilities to patients.”
References


