Author's response to reviews

Title: Association between health worker motivation and healthcare quality efforts in Ghana

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Author's response to reviews: see over
Introduction

We wish to express our appreciation to the editor and the reviewers for the opportunity to revise this manuscript for re-submission. The comments are insightful, detailed, constructive and comprehensive enough to improve on the quality of the manuscript. The efforts are highly appreciated.

All comments have been outlined step by step per reviewer and correspondingly addressed with responses. Kindly find below the responses to three reviewers. The updated manuscript together with the Tables and Figures have also been uploaded. We look forward to your comments on the current/updated manuscript.
Major compulsory revisions

- **Comment 1:**
  - **Response:**
    - Entire report of manuscript revised and shortened. The word count for the paper has reduced from 5,161 to 4,886 (excluding tables, figures and references)
    - The tables have also been revised to soften the detailed technical language.
      - Table 2 of previous manuscript revised to Table 1 of current/updated manuscript. Table 3 of previous manuscript removed completely to focus the paper specifically on staff motivation indicators and their relationship with levels of efforts towards quality improvement.
      - The quality care components in Table 3 of previous manuscript have been presented in Table 4 and Figure 2 of revised manuscript with additional five (5) quality care standard areas in Ghana’s National Health Insurance Authority (NHIA) accreditation data, presented in Figure 1 of current manuscript. This is in line with the reviewer’s suggestion to reduce the detailed technical presentation of information.
      - Table 4 and 5 in previous manuscript have also been removed and incorporated into Table 4 and Table 3 respectively in current revised manuscript.

- **Comment 2: Discussion and conclusions**
  - **Comment on discussion**
  - **Response:**
    - Entire discussion has been updated to align with the revised Findings section.
    - Reference to Lesotho is not questionable as the details can be found in: “Coelho MNC and O’Farrel C. Integrated health systems: Lesotho’s pioneering model. Handshake, IFC’s quarterly journal of public-private partnerships, 2011, 3”.
    - Nonetheless, discussion on the Lesotho case has been removed from the text since it is not of relevance to the entire discussion, following the revision.

- **Comment on conclusion**
  - **Response:**
    - Conclusion revised thoroughly and sections of it separated into “Policy Implications” as suggested by reviewer. The revision is found in pages 10 – 15 of the current/updated manuscript
Comment on intent of the statement below:

- “It is concluded that quality improvement interventions integrate more comprehensive staff motivation packages and reconsider the routine increment of salaries as the mainstream motivation strategy. Sole financial incentives by themselves have proven to be non-motivating and sometimes counterproductive.”

  - Response:
    - Above statement has been restructured as follows: “Staff motivation levels with work conditions positively correlate with quality care and patient safety standards in health facilities. It is therefore concluded that quality improvement interventions in developing countries such as Ghana integrate more comprehensive staff motivation packages that balance financial and non-financial incentives. It is assumed that this comprehensive approach will contribute significantly towards meeting the health needs of Ghanaians and attainment of the health related MDGs by the year 2015” (See Page last paragraph on Page 15).
    - Entire conclusion updated to focus the conclusions on the research questions as suggested by the reviewer. Revised conclusion can be found on page 15 of the current manuscript.

Comment on correspondence of the Title and the Abstract

- Response:
  - Title and abstract amended to ensure their direct relation. See revised title, abstract and conclusion in current manuscript.
  - Title of the manuscript revised from “Health worker motivation and quality healthcare in Ghana” to “Associations between health worker motivation and healthcare quality efforts in Ghana”.

Reviewer 2

Title: Health worker motivation and quality healthcare in Ghana
Version: 1 Date: 19 March 2013

Reviewer: Nida P Harahap

- **Comments on Abstract**
  - **Response:**
    - Reviewer’s suggestion taken and recommended words incorporated to correspond with the title. Entire abstract reformulated to that effect.

- **Comments on Background**
  - **Response:**
    - Reviewer’s suggestion incorporated in the *Background* of the current manuscript. To reduce the word count and volume of the paper, information in Figure 1 and Table 1 have been written in the text. The Figure 1 and Table 1 have therefore been removed from the current manuscript. Paragraphs 5 and 6 in the current/updated manuscript therefore incorporate the reviewer’s comments.

- **Comment on Figure 1:**
  - **Response:**
    - Please see response to the *Background* above.

- **Comments on methods:** Study design and data collection (Paragraphs 1, 2, 3 & 4)
  - **Response:**
    - Reviewer’s comment incorporated by mentioning the staff motivation markers and quality care indicators in Endnotes i and ii in the current manuscript. The 19 workplace motivational factors have also been indicated in the last paragraph under the *Statistical analysis* section (Page 6-7).

- **Ethical consideration**
  - **Response:**
    - The statement is framed as “Ghana Health Services (GHS) Ethical Review Board (ERC)” because the ERC is under the GHS, not a separate institution from the GHS.

- **Comment on hypothesis 2**
  - **Response:**
    - All three hypotheses have been incorporated into the broader research objective as indicated in the *Background* section (paragraph 11, Pages 3-4) of the current manuscript.

- **Comments on Results**
  - **Comment on Table 2**
  - **Response:**
• Title of Table 2 changed from “Socio-demographic characteristics of staff” to “Characteristics of health workers”, as suggested by reviewer.

  o Healthcare quality situation in health facilities (paragraph 2)
  o Response:
    ▪ Explanation on the scoring system is provided in endnotes i and ii. Entire sections on “Healthcare quality situation in health facilities” has also been updated and discussed under the sections on “Quality care situation of sampled health facilities” and “Association between staff motivation and quality care in health facilities”, in the current manuscript. This revision is necessary to achieve a balance between staff motivation and its link to levels of efforts towards quality care improvement.

  o Factors associated with health worker motivation (paragraph 1)
  o Response:
    ▪ Text under the said section has been revised to reflect the detailed information in Table 2 of the current/updated manuscript.

  o Factors associated with health worker motivation (paragraph 5)
  o Response:
    ▪ Table 4 updated and incorporated into Tables 2 & 3. This is necessary to reduce the detailed statistical information presented in the tables.

  o Factors associated with health worker motivation (Comments on titles of Tables 4, 5 & 6)
  o Response:
    ▪ Tables 4 & 5 of previous manuscript removed to soften the detailed statistical works. Table 6 in previous manuscript is however maintained and renamed Table 4 with added information.
    ▪ As suggested by the reviewer, the title has also been changed from “Spearman Correlation test of association between staff motivation and quality care” to “Association between staff motivation and quality care”, as suggested by reviewer.

• Comments on Discussion
  o Comment on paragraph 1
  o Response:
    o The following sentence has been removed as suggested by reviewer “This sections of the paper discussed the field result”

• Discretionary Revisions
  o Consistency in usage of “formal sector” and “public sector”. The current manuscript consistently used “Public sector”.
  o Consistency in the terminology usage: “Health worker” used consistently in the current manuscript.
  o “Clinical staff” and “non-clinical staff” are cadre of health workers consistently used in the text as required.
- Suggestion to use “Human resources for health” instead of “health sector human resources”. Suggestion incorporated in the entire text of the current manuscript.

- **Suggestion to adopt concepts of pioneer theorists on worker motivation**

  **Response:**
  - Co-authors together with lead author unanimously agreed these pioneer theories, though very important and informative, have been explained exhaustively in the existing literature and might not need further exposition in this paper.

- **Comment on writing more about Table 2**

  **Response:**
  - Table 2 in previous manuscript updated and incorporated into Table 1 and Table 2 of current manuscript.
Reviewer 3  
Title: Health worker motivation and quality healthcare in Ghana  
Version: 1 Date: 19 March 2013  
Reviewer: Delanyo Dovlo

- **Comment on over reliance on statistical approaches**  
  - **Response:**  
    - The study is a triangulation of statistical and qualitative approaches. Individual in-depth (IDIs) (n=22) were first conducted to inform the development of the quantitative surveys which are reported in this manuscript. The current manuscript is focused mainly on the quantitative results. The qualitative results are being analyzed for another paper hence the “silence” on the qualitative results in this paper.

- **Comment on whether the products measured are truly descriptive of quality**  
  - **Response:**  
    - The National Health Insurance Authority (NHIA) accreditation data reports on five core quality care indicators. These five indicator areas form part of the required quality standards for accreditation. The Essentials patient risk assessment tool, which is also presented in this manuscript, assesses patient risk areas which, is not detailed accreditation process. The focus of the Essentials tool is to identify patient risk areas and levels of efforts by pertinent facilities towards quality improvement. The reviewer’s comment informed a revision of the methodology to reflect these distinctions. The limitations of the Essentials tool as a quality assessment tool have also been spelt out in the latter part of the last paragraph of the **Background** section in the current manuscript (See Page 4).

- **Comment on discriminating staff motivation based on professional category**  
  - **Response:**  
    - Reviewer’s suggestion incorporated in the results section (Table 1) of the current manuscript. The differentiation based on professional category was not dwelt on because of the focus of the paper on overall staff motivation markers and their relationship with quality care situation in pertinent facilities.

- **Comment on the Service Provision Assessment Results**  
  - **Response:**  
    - The service provision assessment was last conducted in 2002 and has since not been updated. The NHIA quality assessment data on other hand was collected from 2009 up to 2011. The NHIA data is therefore the most recent available data on the quality situation in sampled facilities. In addition, the Ghana Service
Assessment (GSPA) was conducted across the different categories of health facilities (e.g. hospitals, polyclinics, clinics and health centres). Given that our study concerned only primary health facilities, the NHIA accreditation data on our sampled health facilities was the most appropriate secondary data source for this manuscript.

- **Comments on statistics**
  - **Response:**
    - The authors are convinced about the appropriateness of the statistics used