Author’s response to reviews

Title: Patient, clinician and logistic barriers to blood pressure control among adult hypertensives in rural district hospitals in Rwanda: a cross-sectional study.

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Version: 2 Date: 07 Aug 2019

Author’s response to reviews:

Dear Editor,

Thank you for considering our extensively modified article, “Patient, clinician and logistic barriers to blood pressure control among adult hypertensives in rural district hospitals in Rwanda: a cross-sectional study.” for publication in BMC Cardiovascular Disorders.

This novel study showcases practical barriers patients, clinicians, and health systems face in achieving desirable hypertension outcomes in the developing world. We have made modifications in light of the reviewers’ comments.

We believe this study provides new data on an important issue of relevance to all those who manage hypertension in resource-poor settings, and for those looking to aid in the amelioration of this growing problem.

Sincerely,
JP Sibomana, Tim Walker and Robert McNamara

BCAR-D-18-00272R1
Patient, clinician and logistic barriers to blood pressure control among adult hypertensives in rural district hospitals in Rwanda: a cross-sectional study.

Editor Comments:

In the revision, please be sure to consider the following:

1. As you indicate that some patients were below 18 years of age, please indicate that ethics permission from the parents of these patients was obtained (this can be done retrospectively). Otherwise, indicate why this parental consent was not required, i.e. if the laws of Rwanda means that the age of adulthood is officially 15 years old.

2. Place much more discussion and limitations writing into this age discrepancy of these young adults and how they differ from the rest of the studied population. I agree with both reviewers that you have not dealt with this point adequately to this point.
We apologize for the ambiguity. Although the clinics official age range includes anyone over the age of 15 years, there were no patients below the age of 22 years of age in our study. We have clarified the age range of our study in Methods on page 6 and in the Results on page 10.

Reviewer reports:
Reviewer 2 (Reviewer 2): PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses one or several testable research questions? (Brief or other article types: is there a clear objective?)
Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?
No - there are minor issues

EXECUTION - Are the experiments and analyses performed with sufficient technical rigor to allow confidence in the results?
No - there are minor issues

STATISTICS - Is the use of statistics in the manuscript appropriate?
Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?
No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution? If not, can further revisions be made to make the work technically sound?
Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: PATIENT, CLINICIAN AND LOGISTIC BARRIERS TO BLOOD PRESSURE CONTROL AMONG ADULT HYPERTENSIVES IN RURAL DISTRICT HOSPITALS IN RWANDA: A CROSS-SECTIONAL STUDY

Thanks for the opportunity to re-review this manuscript.
1. There is much improvement in the manuscript compared with previous submission.
2. Authors have admitted the need to modify the title of the study to reflect the content of the manuscript as suggested by this reviewer. The title is now appropriate.

REQUESTED REVISIONS:

STUDY DESIGN AND DEFINITION OF HYPERTENSION AND BP CONTROL IN TEENAGED AGE 15, 16 AND 17 YEARS.

We appreciate this concern. As mentioned in the prior response, no patients below the age of 22 were included in our study. We have clarified the age range of our study in Methods on page 6 and in the Results on page 10.

3. Study design is confusing:

In the abstract section the use of words 'cross-sectional' 'prospective' are confusing! Was the study a cross-sectional or prospective study? The use of word 'prospective' whether for descriptive convenience or thematic elaboration should be reviewed throughout the manuscript.

Please read the title of the study:

PATIENT, CLINICIAN AND LOGISTIC BARRIERS TO BLOOD PRESSURE CONTROL AMONG ADULT HYPERTENSIVES IN RURAL DISTRICT HOSPITALS IN RWANDA: A CROSS-SECTIONAL STUDY

Read also abstract:

……….Cross-sectional, multifactorial, observational study conducted at four rural Rwandan district hospitals, examining patient, clinician and logistic factors……………

………….. Blood pressure measurements and other clinical data were collected prospectively during the study visit and used to determine blood pressure control, according to goals……………………..

We apologize for the confusion. As patients were not followed over time, the study is cross sectional. We have corrected the confusing statements on page 2 and page 6

Methods

1. Re-cast this sentence

Please read…..The medical record was reviewed for last prescribed medication, current BP, height and weight; the current antihypertensive prescription was sought directly from the patient…………

Thank you. As mentioned above, we have changed the wording to cross-sectional.

2. Previous comment on:

a. Inclusion criteria:

- Provide clear definition of adults based on JNC 8 criteria you used in defining BP control. [THIS IS IMPORTANT FOR CLINICAL AND EPIDEMIOLOGICAL PURPOSES AS REGARDS BIOLOGICAL OR CHRONOLOGICAL AGE FOR DIAGNOSIS AND TREATMENT OF
HYPERTENSION]

- How did you diagnosed hypertension in 16 and 17-year-old patients you included in the study? [Authors wrote that they used JNC 8 criteria]

- How did you define BP control in 16 and 17-year-old patients you included in the study? [Authors wrote that they used JNC 8 criteria]

PLEASE READ….. Patients aged greater than 15 years, with known hypertension that was managed in an outpatient setting………………

We appreciate this concern. As mentioned in a prior response, no patients below the age of 22 were included in our study. We have clarified the age range of our study in Methods on page 6 and in the Results on page 10.

RESULTS SECTIONS: AUTHORS ARE YET TO PROVIDE APPROPRIATE RESPONSES FOR MY COMMENTS [SEE PREVIOUS COMMENTS}

i. Remove reference citation from the results section [Please delete reference 8]. IT IS INAPPROPRIATE FOR AUTHORS TO USE THE SAME BP CUT OFF POINTS BASED ON THE REFERENCE 8 TO DEFINE BP CONTROL IN TEENAGED AGED 16 AND 17 YEARS; OTHER SPECIAL HIGH RISK PATIENTS.

PLEASE READ THIS………….Only 26 (29%) had achieved the goal blood pressure.8

HERE IS REFERENCE 8


We appreciate this concern. As mentioned in a prior response, no patients below the age of 22 were included in our study. We have clarified the age range of our study in Methods on page 6 and in the Results on page 10.

ii. Define adult by JNC 8 criterion?

Although the clinics official age range includes anyone over the age of 15 years, there were no patients below the age of 22 years of age in our study. Thus, fortunately, we were able to use the official lower age limit of JNC 8 to be 18 years or older.

STUDY PROCEDURE AND CRITERIA

1. How did you define BP control for the teenaged hypertensives aged 15, 16, and 17 years USING JNC 8? [MISCLASSIFICATION]

We appreciate this concern. As mentioned in a prior response, no patients below the age of 22 were included in our study. We have clarified the age range of our study in Methods on page 6 and in the Results on page 10.
2. 3. How did you define BP control for the special population group of hypertensive such as diabetic hypertensives, etc USING JNC 8? [MISCLASSIFICATION]

Thank you for identifying this limitation. We have added the limitation below in the discussion on page 18:

Although the presence of diabetes mellitus and chronic kidney disease affect the blood pressure goals in JNC 8 guidelines8 for those older than 60 years of age, the reliability of the data for these two conditions in our study was not high enough to use appropriately. We chose to give the clinicians the benefit of the doubt, and we allowed a blood pressure of up to 150/90 for all people over the age of 60 years. Of note, in sub analysis, blood pressure control did not significantly differ for those under age 60 years from those over age 60 years.

Thank you

JP Sibomana, Tim Walker and Robert McNamara