PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Patient preferences and attitudes towards first choice medical services in Shenzhen, China: a cross-sectional study
AUTHORS	Zhao, Xinyu; Xiao, Junhui; Chen, Huida; Lin, Kena; Li, Xiaoman; Zeng, Zhiwen; Huang, Shuyun; Xie, Zhikui; Du, Jinlin

VERSION 1 – REVIEW

REVIEWER	Liu, Wenbin Fujian Medical University, School of Public Health
REVIEW RETURNED	01-Nov-2021

GENERAL COMMENTS	Since hierarchical diagnosis and treatment plays a crucial role in China's medical system reform for its expect function in directing patient flow by changes in coverage and diversifying reimbursement rates, it is important to determine the patients' preference of first medical service institution and identify regarding influencing factors. This study took Shenzhen city in China as an example to bridge the issues, the findings will benefit the practice of hierarchical diagnosis and treatment. However, there were still some basic shortcomings as follows to overcome before this paper become publishable. 1 It was still unclear about what is already known. This paper hadn't given comprehensive introduction on the field of patient choice of health institutions. In the section of introduction, the authors told a long story of Shenzhen, while there was a dearth of content about the findings of previous research in regarding fields of patient choice of health institutions. Therefore, It is strongly recommended to demonstrate the previous finding on the patient choice and its determinants in detail. 2 As mentioned above, since it was unclear about what is already known for inadequate introduction of the previous research, it is also hard to determine the originality of this study. Although the authors demonstrated their regarding findings in Shenzhen, it is still hard to identify what is new. Additionally, as Shenzhen is only a sample site, the authors also hasn't indicated the key scientific problems they intended to address. 3 As BMJ open is an international journal, it is required to investigate the scientific problem at a worldwide perspective. Specifically, it would be more reasonable to cite other studies in many other countries in the world to arouse international discussion, rather than limit to the only countries as China, or even Shenzhen. This drawback was very serious throughout the whole manuscript.

4 Although the preference of medical services was the key research scope of this study, there were not enough introductions on its measurement. Additionally, the questionnaire of this study was also not attached. It is still not clear how you measure this key variable.

5 As stated in the manuscript, the Multivariate logistic regression analysis was conducted to identify the influencing factors of the participants' preference of medical services. However, as displayed in table, it seems not the right form of the demonstration of the results. Besides, the multivariate logistic regression analysis also had its limitations in investigating the influencing factors of patients' preference, and many other robust analysis methods had been explored and applied in many similar studies, such as DCE and so on.

6 Since there was no questionnaire attached, it is also hard to determine whether the reliability assessment in this study was conducted appropriately.

7 As stated in above point 3, the discussion section of this manuscript also limited to the situation or studies in China, which greatly weaken the generalisability of this study.

8 Some content in the conclusion can't be supported by the results or discussion, such as "Medical resources were not successfully optimized, especially to community health service centers", etc.

REVIEWER	Cheng, Yue University of Kentucky, Pharmaceutical outcomes and policy
REVIEW RETURNED	03-Nov-2021

GENERAL COMMENTS	This manuscript is well written. I do have a few suggestions as below. Abstract 1. Keep format consistent (objectives is different from other sections) Methods 1. Could the authors give a more detail information about 'Subjects were selected according to the outpatient records of Shenzhen Medical System in 2017.'? 2. Page 5, Line 53-58' –I am a little confused about how you select the study subjects. '50~220 households were first selected among 10 districts according to the population size.' Do you mean 50 to 220 households were selected in 10 districts respectively? 3. Medical condition (number of comorbidities) may be an important factor of choosing medical institution. Is there any reason that this study did not include comorbidities? Results 1. Keep the size, format and font consistent in the Table 1 2. In table 5, please clearly differentiate variables included in model 1 and model 2 separately.

REVIEWER	Ismail, Aniza UKMMC
REVIEW RETURNED	03-Dec-2021

GENERAL COMMENTS	1. Title

	The content is mainly on community study why the title was on patient. Not clear to me.
	2. Introduction Objective of the study was to determine the preference and attitude. Please add on preference and atttitude. The objective is not clear since you have 2 model of logictic regression on actual and expected. Also to identify the attitude. Not clear to me the ojectives and findings.
	3. Methodology. Need to improve. Sample size . How did you get 1612. .. please add in the manuscript. Please add more on tool development and has separate section on tool development. The dependent and others variables no definition. Add the operational definition. Please add the references of classifaction used in the independent variables.
	4. Results Not clear why have 2 dependent variables.?. No explanation on actual and preference. Are you comparing the determine factors of actual and preference medical institutions. Table 4 - no explanation in the methodology. Please add in methodology. How the item is developed and why.
	5. Discussion Line 39 -53 please compare the findings with previous study and justify on your findings The discussion on actual and preference was not clear. The factors discussed were for which dependent variables and how do you explain the different findings from both. Why both are studied.Please explain in the introduction too.

VERSION 1 – AUTHOR RESPONSE

Reviewer #1:

Comments to the Author:

Since hierarchical diagnosis and treatment plays a crucial role in China's medical system reform for its expect function in directing patient flow by changes in coverage and diversifying reimbursement rates, it is important to determine the patients' preference of first medical service institution and identify regarding influencing factors. This study took Shenzhen city in China as an example to bridge the issues, the findings will benefit the practice of hierarchical diagnosis and treatment. However, there were still some basic shortcomings as follows to overcome before this paper become publishable.

Response: Thank you for your summary. We really appreciate your positive evaluation of our work and agree with all the insightful comments regarding the limitations of our study. We have revised the manuscript accordingly. Our point-by-point responses are detailed below.

1. It was still unclear about what is already known. This paper hadn't given comprehensive introduction on the field of patient choice of health institutions. In the section of introduction, the authors told a long story of Shenzhen, while there was a dearth of content about the findings of previous research in regarding fields of patient choice of health institutions. Therefore, it is strongly recommended to demonstrate the previous finding on the patient choice and its determinants in detail.

Response: Thanks for your nice suggestion. We have rewritten the section of Introduction by reducing the information of Shenzhen and adding information of the problems and influencing factors of hierarchical diagnosis and treatment at home and abroad. The structure of the Introduction contains three parts: hierarchical diagnosis and treatment in China, in western countries and succinct information regarding Shenzhen. Please refer to the Introduction Section in Page 4-6.

2.As mentioned above, since it was unclear about what is already known for inadequate introduction of the previous research, it is also hard to determine the originality of this study. Although the authors demonstrated their regarding findings in Shenzhen, it is still hard to identify what is new. Additionally, as Shenzhen is only a sample site, the authors also hasn't indicated the key scientific problems they intended to address.

Response: Thanks for your nice suggestion. We feel sorry for the unclear description. We have added information of the problems and influencing factors of hierarchical diagnosis and treatment at home and abroad in the Introduction Section in Page 4-6.

The key scientific problems in the current study mainly regards two aspects. First, we agree that Shenzhen is only a sample site, but it is quite different from other first-tier cities in China in terms of the imbalance of rapid economic growth and insufficiency in medical resources. Under this circumstance, Shenzhen, to some extent may serve as a special case in studying the implementation of hierarchical diagnosis and treatment and exploring the dilemma of hierarchical diagnosis and treatment. In addition, previous studies regarding the preference or attitude of medical choice were mainly focused on the actual health-seeking behavior, which was defined as the actions taken by individuals who perceive they have an illness to obtain a suitable remedy. As an individual's healthcare needs do not necessarily turn into effective demand, the expected medical institution for an individual's first consultation may be different from the actual selection. Therefore, the exploration of factors on expected and actual first medical institution may, to some extent, help us determine and figure out the differences between individual preference and attitude of the medical institution, and their actual healthcare-seeking behaviors, which is very crucial for strengthening the hierarchical diagnosis and treatment system, as it also concerns the effective allocation and rational use of medical resources.

3.As BMJ open is an international journal, it is required to investigate the scientific problem at a worldwide perspective. Specifically, it would be more reasonable to cite other studies in many other countries in the world to arouse international discussion, rather than limit to the only countries as China, or even Shenzhen. This drawback was very serious throughout the whole manuscript.

Response: Thanks for your nice suggestion. We have rewritten the Introduction Section by adding information of the studies on the problems and influencing factors of hierarchical diagnosis and treatment at home and abroad. Please refer to the Introduction in Page 4-6.

We also cited other studies regarding other countries in the Discussion Section. Please refer to the Discussion in Page 17-22.

4.Although the preference of medical services was the key research scope of this study, there were not enough introductions on its measurement. Additionally, the questionnaire of this study was also not attached. It is still not clear how you measure this key variable.

Response: Thanks for pointing this out to help us improve the description of the Methods Section. In measuring the expected preferred first medical institution, question is "If conditions permit, what type of medical institution would you like to choose for the first consultation?". In measuring the actual preferred first medical institution, question is" If you are unwell, what type of medical institution did you choose?" Please refer to Line from 17 to 28 in Page 7. We also attached the questionnaire for your reference.

5.As stated in the manuscript, the Multivariate logistic regression analysis was conducted to identify the influencing factors of the participants' preference of medical services. However, as displayed in table, it seems not the right form of the demonstration of the results. Besides, the multivariate logistic regression analysis also had its limitations in investigating the influencing factors of patients' preference, and many other robust analysis methods had been explored and applied in many similar studies, such as DCE and so on.

Response: We apologize for the misunderstanding caused by unclear description. We have revised the corresponding table. Independent variables were screened by Forward Stepwise Logistic regression, as highlighted in yellow with red fonts in the Statistics Section in Line 47-48 in Page 7.

In model 1, education and monthly income are ordinal variables. Education level of junior high school and below as assigned as 1, high school/technical secondary as 2, junior college as 3 and undergraduate and above as 4. Monthly income below 3000 was assigned as 1, 3000~ as 2, 5000~ as 3, 10000~ as 4 and ≥15000 as 5.

In Model 2, occupation was dummified and other occupation as a reference (in Table 5). Medical insurance is also an ordinal variable, with the level from 1 to 3 set as the corresponding value from 1 to 3, and uninsured as 4. In Shenzhen, level 1 has the highest coverage of medical benefits. The higher level of medical insurance, the less likely selection of high-level hospitals.

We have rewritten this part highlighted as "Occupation and housing conditions were dummified, with other occupation, other housing condition as a reference. Other independent variables including ≤20 years, Shenzhen household registration, unmarried as the reference. Monthly income, education and medical insurance as ordered variables." in Line 18-23 in Page 16.

6.Since there was no questionnaire attached, it is also hard to determine whether the reliability assessment in this study was conducted appropriately.

Response: Thanks for your nice suggestion. We have attached the questionnaire as the supplement. The reliability and validity of the questionnaire were good with an overall internal consistency, a Cronbach α coefficient of 0.826, Kaiser-Meyer-Olkin index of 0.791 and the cumulative contribution rate of 6 factors of 81.959%.

7.As stated in above point 3, the discussion section of this manuscript also limited to the situation or studies in China, which greatly weaken the generalisability of this study.

Response: Thanks for your nice suggestion. We had added studies regarding other countries in the Discussion Section. Please refer to the Discussion in Page 17-22.

8.Some content in the conclusion can't be supported by the results or discussion, such as "Medical resources were not successfully optimized, especially to community health service centers", etc.

Response: Thanks for your suggestion and we have deleted this sentence.

Reviewer #2: This manuscript is well written. I do have a few suggestions as below.

1. Abstract: keep format consistent (objectives is different from other sections)

Response: Thank you for your suggestion and we have formatted the abstract according to BMJ Open's submission guidelines. Please refer to Page 1-2.

2. Methods: could the authors give a more detail information about 'Subjects were selected according to the outpatient records of Shenzhen Medical System in 2017.'?

Response: Thank you for pointing this out to improve the Methods section. Participants were patients with outpatient records who were selected 2017 Shenzhen Medical System. According to the pre-survey results, the patients' awareness rate of the hierarchical diagnosis and treatment system was 40%, with the maximum allowable error of 2.5% and the confidence level of 95%, the sample sized was calculated as 1475. Taking into account the invalid questionnaire and expansion of sample size by 9%, a total of 1612 people were finally investigated. In order to improve the representativeness of the sample in this study, stratified sampling was performed and the number of the participants varied according to the number of residents in each district. Finally, the number of participants from each district were 210(14.0%) in Futian district, 210(14.0%) in Luohu district, 210(14.0%) in Nanshan district, 50 (3.3%) in Yantian district, 260 (17.3%) in Baoan district, 260(17.3%) in Longgang district, 150(10.0%) in Longhua district, 50(3.3%) in Pingshan district, 50(3.3%) in Guangming district and 50(3.3%) in Dapeng new district. Please refer to Line 45-57 in Page 6.

3. Methods: Page 5, Line 53-58' –I am a little confused about how you select the study subjects. '50~220 households were first selected among 10 districts according to the population size.' Do you mean 50 to 220 households were selected in 10 districts respectively?

Response: Thanks for your detailed review and we apologize for the unclear description of the participant selection section.

There are ten districts in Shenzhen and in order to improve the representativeness of the sample in this study, we performed stratified sampling. The number of the participants varied according to the number of residents in each district. Finally, the number of participants from each district were 210(14.0%) in Futian district, 210(14.0%) in Luohu district, 210(14.0%) in Nanshan district, 50 (3.3%) in Yantian district, 260 (17.3%) in Baoan district, 260(17.3%) in Longgang district, 150(10.0%) in Longhua district, 50(3.3%) in Pingshan district, 50(3.3%) in Guangming district and 50(3.3%) in Dapeng new district.

We have rewritten the above information in the revised manuscript from Line 45-57 in Page 6.

4. Methods: Medical condition (number of comorbidities) may be an important factor of choosing medical institution. Is there any reason that this study did not include comorbidities?

Response: We agree with the reviewer that this is a potential limitation of the study. We have discussed the effects of medical conditions in the Discussion Section from Line 53 to 57 in Page 20. We also added this as a limitation in the Strength and Limitation Section from Line 31 to 33 in Page 22.

5. Results: Keep the size, format and font consistent in the Table 1

Response: Thanks for the suggestion. We have adjusted the size, format and font in Table 1 in page 8 in the revised manuscript.

6. Results: In table 5, please clearly differentiate variables included in model 1 and model 2 separately.

Response: Thanks for the suggestion. We have redescribed the results of Table 5 in Page 16.

Reviewer #3

1. Title: The content is mainly on community study why the title was on patient. Not clear to me.

Response: There are two reasons for the emphasis of "patients" in the title. **First**, in the current study, participants were patients with outpatient records who were selected 2017 Shenzhen Medical System, but not recruited from the community. **In addition**, as we aimed to describe the preferences of both expected and actual selection of their first medical visit, the occurrence can only be observed in patients with questionnaire and traceable medical record.

2. Introduction: Objective of the study was to determine the preference and attitude. Please add on preference and atttitude. The objective is not clear since you have 2 model of logictic regression on actual and expected. Also to identify the attitude. Not clear to me the ojectives and findings.

Response: Thanks for your nice suggestion. We added revised our title as "Patient preference and attitude of first medical service in Shenzhen, China: a cross-sectional study".

3. Methodology: Need to improve. Sample size . How did you get 1612. .. please add in the manuscript. Please add more on tool development and has separate section on tool development. The dependent and others variables no definition. Add the operational definition. Please add the references of classification used in the independent variables.

Response: Thanks for your nice suggestion. Participants were patients with outpatient records who were selected 2017 Shenzhen Medical System. According to the pre-survey results, the patients' awareness rate of the hierarchical diagnosis and treatment system was 40%, with the maximum allowable error of 2.5% and the confidence level of 95%, the sample sized was calculated as 1475. Taking into account the invalid questionnaire and expansion of sample size by 9%, a total of 1612 people were finally investigated. Please refer to Line 45-57 in Page 6.

In terms of the definitions of variables, we added the measuring question of expected and actual first medical institution in the Methods Section from Line 17 to 28 in Page 7.

We're afraid that considering the limit of word count, there is no extra space for the definitions of variables such as occupation, education and so on. The classifications of these independent variables were available in Table 1. We also attached the questionnaire for your reference.

4. Results: Not clear why have 2 dependent variables.?. No explanation on actual and preference. Are you comparing the determine factors of actual and preference medical institutions.

Response: From the literature search, we found that previous studies regarding the preference or attitude of medical choice were mainly focused on the actual health-seeking behavior, which was defined as the actions taken by individuals who perceive they have an illness to obtain a suitable remedy. As an individual's healthcare needs do not necessarily turn into effective demand, the expected medical institution for an individual's first consultation may be different from the actual selection. Therefore, the exploration of factors on expected and actual first medical institution may, to

some extent, help us determine and figure out the differences between individual preference and attitude of the medical institution, and their actual healthcare-seeking behaviors, which is very crucial for strengthening the hierarchical diagnosis and treatment system, as it also concerns the effective allocation and rational use of medical resources. Under these circumstances, we established two models. In model 1, the dependent variable is actual selection of first medical institution whereas in model 2, the dependent variable is expected first medical institution, if condition permits. Independent variables, including occupation, monthly income, education level and so on, are exactly the same.

The measurement of 2 dependent variables were stated in Line 17 to 28 in Page 7 and the corresponding results can be found in Page 16-17.

5. Results: Table 4 - no explanation in the methodology. Please add in methodology. How the item is developed and why.

Response: Thanks for pointing this out to improve the description of Statistic section. Table 4 were results from Chi-square and linear trend tests between the understanding and the approval level of the community first consultation system. We have added in the Statistic Section in Line 40 to 44 in Page 7.

6. Discussion: Line 39 -53 please compare the findings with previous study and justify on your findings.

Response: Thanks for your nice suggestion. We have added previous studies in the Discussion Section in Page 17 to 22.

7. Discussion: The discussion on actual and preference was not clear. The factors discussed were for which dependent variables and how do you explain the different findings from both. Why both are studied. Please explain in the introduction too.

Response: Thanks for your nice suggestion. We have rewritten the Discussion Section. Please refer Page 17 to 22.

VERSION 2 – REVIEW

REVIEWER	Liu, Wenbin Fujian Medical University, School of Public Health
REVIEW RETURNED	02-Feb-2022

GENERAL COMMENTS	Most of the issues have been addressed. However, some revisions are still required as follows, (1) Why did you apply forward stepwise logistic regression to screen independent variables? It is unreasonable to do this. You should propose your research hypotheses on the basis of comprehensive literature review on the previous studies, then determine the potential independent variables under the guidance of your professional knowledge, and finally "enter" them into the model to run. You should not rely on the statistical tools to choose independent variable. If you have done so, you should revise it all. (2) Since BMJ open is an internatiional journal, the source of the research outcome cited should not be limited to China, but any other countries all over the world. Although you have added some literatures from the countries other than China, they still accounted for a rather small proportion. Please add more references from multiple countries all over the world.

REVIEWER	Ismail, Aniza UKMMC
REVIEW RETURNED	4-Feb-2022

GENERAL COMMENTS	Generally the previous comments have been addressed by the authors. Thank you However I have some comments 1. Objective of the study objective no (2) understand citizens' views and attitudes towards community health services. Advise to delete the word views 2. Result i.Statement "There was no statistically difference among 1104 subjects with specific first medical institution choice between two sexes (=2.843, P=0.416). Why you have this statement ? ii.Please ensure all the row percent results is 100% in Table 2 iii. to re analysis the logistic regression analysis. Advise is to get statistician to look into the bivariate and multivariate analysis. iv. the discussion is too long and suggested to focus to the objectives of the study. v. need to proofread the manuscript vi. pleaser refer my comments in the attached file

VERSION 2 – AUTHOR RESPONSE

Reviewer #1:

Comments to the Author: Most of the issues have been addressed. However, some revisions are still required as follows.

Response: Thank you for your review and we feel sorry that some revisions are still needed to make in the manuscript. We have revised the manuscript accordingly and our point-by-point responses are detailed below.

1. Why did you apply forward stepwise logistic regression to screen independent variables? It is unreasonable to do this. You should propose your research hypotheses on the basis of comprehensive literature review on the previous studies, then determine the potential independent variables under the guidance of your professional knowledge, and finally "enter" them into the model to run. You should not rely on the statistical tools to choose independent variable. If you have done so, you should revise it all.

Response: Thank you for your valuable suggestion and we feel sorry for the unclear description. We have revised the description of logistic regression in the "Methods" in Line 265-269 in Page 13 and results were also revised in the section of "Main factors affecting participants' medical institution preferences" in Page 25-27. In terms of the statistical analysis, we first performed χ^2 tests to explore

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the relationships between the medical service preference and various factors. We also performed χ2 test and linear trend test to explore the difference between the understanding of the community first consultation system and the approval level of the community first consultation system. Multivariate logistic regression analysis was then performed to explore the factors affecting the preference of medical service and all the potential independent variables, which were statistically significant by chi-square test, were entered by the forced entry method.

2. Since BMJ open is an international journal, the source of the research outcome cited should not be limited to China, but any other countries all over the world. Although you have added some literatures from the countries other than China, they still accounted for a rather small proportion. Please add more references from multiple countries all over the world.

Response: Thank you for this suggestion. We totally agree that BMJ open is an international journal, yet as our study is focused on Chinese, we believe that references regarding studies in China are necessary. In response to this point, we have adjusted the structure and content of the discussion section a little, as one reviewer thought the discussion section was too long. We have deleted some information regarding Shenzhen, such as in Page 26, 32 and 40. We also added more studies related to the preference of the medical service from other countries. Please refer to Reference 7,9,34,35,36,37 and 39.

Reviewer #3:

Comments to the Author: Generally, the previous comments have been addressed by the authors. Thank you However I have some comments.

Response: We feel sorry that some revisions are still needed to make in the manuscript. We have revised the manuscript accordingly and our point-by-point responses are detailed below.

1. Objective of the study: objective No. (2) understand citizens' views and attitudes towards community health services. Advise to delete the word views.

Response: Thank you for your nice suggestion. We have deleted the word "views" in Line 217, Page 10, in the revised manuscript.

2. Result:

i. Statement: "There was no statistically difference among 1104 subjects with specific first medical institution choice between two sexes ($\chi^2=2.843$, P=0.416). Why you have this statement ?

Response: As stated in the introduction, since an individual's healthcare needs do not necessarily turn into effective demand in theory, the expected medical institution for an individual's first consultation may be different from the actual selection. Under this circumstance, we first described whether there is difference in the actual medical institution selection among municipal, district-level, street-level and community health service between two sexes. Then in the following paragraph, we

described whether there is difference in the expected preferred medical institution selection among municipal, district-level, street-level and community health service between two sexes.

The statement "There was no statistically difference among 1104 subjects with specific first medical institution choice between two sexes (χ^2=2.843，P=0.416)" was just in this paragraph. We feel sorry for the unclear description, and we have rewritten this statement as "There was no statistically difference in the expected medical institution among municipal, district-level, street-level and community health service between two sexes (χ^2=2.843，P=0.416). Please refer to Line 303-312 in Page 16.

ii. Please ensure all the row percent results is 100% in Table 2.

Response: Thank you for pointing this out. When calculating percentages, we have made very slight adjustments due to rounding and sum to 100%. Please refer to Table 2 in Page 17-19.

iii. to re analysis the logistic regression analysis. Advise is to get statistician to look into the bivariate and multivariate analysis.

Response: Thank you for your nice suggestion.

In terms of bivariate analysis, we first performed χ^2 tests to explore the relationships between the medical service preference and various factors. We also performed χ^2 test and linear trend test to explore the difference between the understanding of the community first consultation system and the approval level of the community first consultation system.

Multivariate logistic regression analysis was then performed to explore the factors affecting the preference of medical service and all the potential independent variables, which were statistically significant by chi-square test, were entered by the forced entry method. We have re-run the logistic regression analysis. The revised description of logistic regression was in the "Methods" in Page Line 265-269 in Page 13 and results were also revised in the section of "Main factors affecting participants' medical institution preferences" in Page 25-27.

iv. the discussion is too long and suggested to focus to the objectives of the study.

Response: Thank you for your nice suggestion. We have reorganized the logical structure and the content of discussion to make sure it is consistent with the objectives of the study. Please refer to the Discussion section in Page 32-41.

v. need to proofread the manuscript

Response: Thank you for your nice suggestion. We have asked a native English speaker with appropriate research background to polish the manuscript and changes were highlighted in yellow with red fonts.

vi. please refer my comments in the attached file.

(1) Advice to remove the word view

Response: Thank you for your nice suggestion and we have removed the word "view" in Line 217 in Page 10.

(2) Why you only analyse for gender ?

Response: We not only analyze for gender, we also analyze other factors, which were associated with the preference and attitude of medical service. In the descriptive analysis, we first analyzed gender with aim to explore whether there was any difference of the preference and attitude of the medical

service between male and female subjects. We then performed χ2 tests to explore the relationships between the medical service preference and various factors. We also performed χ2 test and linear trend test to explore the difference between the understanding of the community first consultation system and the approval level of the community first consultation system. In terms of the method, please refer to the section of "Statistical analysis" in Page 13 and the corresponding results can be found in the section of "Main factors affecting participants' medical institution preferences" in Page 25-27.

(3) Please ensure all the row percent results is 100%

Response: Thank you for pointing this out. When calculating percentages, we have made very slight adjustments due to rounding and sum to 100%. Please refer to Table 2 in Page 17-19.

(4) My suggestion for the title is Factors in choosing a medical institution. Because this is only descriptive findings and not logistic regression analysis. Why this factor not included in logistic regression analysis? Response: We agree with your suggestion and have changed the subtitle into "Factors influencing the choice of medical institution" in Line 400 in Page 24.

We have re-analyze the logistic regression model with potential variables and entered by the forced entry method. Factors in choosing a medical institution and agreement on the community first diagnosis system were also considered as the independent variables.

Results indicated that factors in choosing a medical institution affected subjects' both actual and expected medical institution. Details can be referred to Table 5 in Page 29-31 and the description of the logistic regression analysis was in Page 25-27.

(5) Check Percentage decimal of "In subjects who were unfamiliar with the community first diagnosis system, only 18.7% agree with this system while 71.70% hold an indifferent attitude".

Response: Thank you for your careful review. We have adjusted "71.70%" into "71.7%" in Line 414, Page 25.

(6) Why factors on health seeking behavior ? The objective is to determine the factors of preference

Response: We feel sorry for the unclear description. Our original intention of this paragraph was to discuss the factors that affect the preference of the medical service. We have revised the subtitle to "Factors influencing the choice of medical institution" in Page 32.

(7)"The finding that medical technology and convenience are the main factors in choosing a medical institution, is consistent with previous studies in which participants indicated to prioritise organizational factors" --But the factor is not included in the logistic regression analysis? Only from descriptive analysis

Response: We have re-analyze the logistic regression model with potential variables and entered by the forced entry method. Factors in choosing a medical institution, including medical technology, convenience, attitude of service and medical ethics and medical price were considered as the independent variables. Results indicated that factors in choosing a medical institution affected subjects' both actual and expected medical institution.

In the actual model, compared with medical price, the main factors when choosing a large hospital are medical technology (OR 6.44; 95% CI: 4.08-10.15), convenience (OR3.13; 95%CI: 1.97-4.99) and service attitude and medical ethics (OR 2.58; 95%CI: 1.49-4.45). Among these factors, medical technology is more important.

In the expected model, compared with medical price, medical technology is the main factor to consider when choosing a large hospital (OR 3.41; OR 95%: 1.90-6.10). Please refer to Table 5 in Page 29-31 and the description of the logistic regression analysis was in Page 25-27 for more details.

VERSION 3 – REVIEW

REVIEWER	Liu, Wenbin Fujian Medical University, School of Public Health
REVIEW RETURNED	06-Apr-2022

GENERAL COMMENTS	I endorsed its publication.

REVIEWER	Ismail, Aniza UKMMC
REVIEW RETURNED	30-Mar-2022

GENERAL COMMENTS	I have no more comments. All the best to you. Thank you