Author’s response to reviews

Title: Factors influencing the attention to home storage of medicines in China

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Author’s response to reviews:

Responses to reviewer/editorial comments on the manuscript entitled
“Factors influencing the attention to home storage of medicines in China”
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Dear editors and reviewers:
Thank you for your letter and for the reviewer/editorial comments concerning our manuscript entitled "Factors influencing the attention to the home storage of medicines in China "( PUBH-D-18-03866R1). (We have changed the title according to the reviewer’s comments)

Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our research. We have studied comments carefully and have made correction which we hope will meet with your approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer’s comments are as follows:

Response to the editorial comments:

Technical Comments:
1. Please place your abstract on the page following your title page, and not on the same page.
Response:
We have made correction and place our abstract on the title page, and on the separated page.

2. Each figure needs to be submitted as a separate figure file and should contain the image graphic (and any associated keys) only. If titles/legends are present within the figure files, please remove them.
Response:
According to the reviewer’s suggestions ,we have turned the figures into tables.
Editor Comments:

1. We note that some abbreviations used in the manuscript text have not been included in the ‘List of Abbreviations’ section. Please ensure that all abbreviations present in the text are listed in this section (ex: OTC).
   Response:
   We are very sorry for our negligence of some abbreviations. We have made correction according to editor’s comments.
   Correction in the revised manuscript:
   We have added some abbreviations in the ‘List of Abbreviations’ section. Please see List of Abbreviations section, line 4, page 21.

2. Please confirm whether informed consent, written or verbal, was obtained from all participants and clearly state this in your manuscript. If verbal, please state the reason and whether the ethics committee approved this procedure.
   Response:
   We have obtained written informed consent from all participants and clearly state it before the survey.
   Correction in the revised manuscript:
   Please see 2.1 Study design section, line 6 to 7, page 4.

3. In the Funding section, please also describe the role of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript.
   Response:
   The funding bodies provided assistance with the questionnaire design and provided financial support to the data collection process.
   Correction in the revised manuscript:
   Please see Funding section, line 1 to 3, page 22.

4. Please represent authors' names using their full initials, not their full name, in the Authors’ Contributions section.
   Response:
   We have represent authors' names using their full initials in the Authors’ Contributions section
   Correction in the revised manuscript:
   Please see Authors’ Contributions section, line 1 to 3, page 22.

5. Please remove figure captions from the figure files and place them in a figure captions list after the references.
   Response:
   According to the reviewer’s suggestions, we have turned the figures into tables.
   Correction in the revised manuscript:
   Please see Table 1 to Table 4, and Additional file 1 and 2.

6. It came to our attention that you have provided the Study Data as an SPSS file in the supplementary data, please provide it in a readable format which doesn’t require SPSS.
Response:
We have provided the Study Data as an excel file in the supplementary data.

Correction in the revised manuscript:
Please see Additional file 5.

Response to the reviewer’s comments:

Responses to the comments of reviewer 1:
1. The authors state that the manuscript was English Language edited by a native English speaker! However, there are still many instances of poor syntax and/or grammatical errors. E.g. second last statement under Background, "Only a few studies have investigated different aspects of adequate storage conditions and factors which affect patient home storage practices", it is important to note that subject matter is "medicines and not "patients" as if patients are being stored at home! Again, under section 2.1 Study design… line 5, "Respondents were invited by face to face ….." Or under conclusion - the sentence "The storage and disposal of household medicines has been becoming an important issue of increasing public awareness" is vague or poor language.

Response:
Thank you very much for your valuable advices. The language originally was revised by a native English-speaker engaged through the auspices of a professional proofreading service; based on your most helpful comments, the usage has been carefully checked and revised again. We now believe that the paper could meet the standards required for publication in the journal and could make our work accessible to the scientific community.

Correction in the revised manuscript:
We have revised the typographical and grammatical errors in the revised manuscript.
Please see Background section, line 15 to 16, page 3.
Please see 2.1 Study design section, line 5 to 6, page 4.
Please see Conclusion section, line 3 to 4, page 20.

2. Repetition of statements is common too.

Specific Concerns
Under Background - it would have been appropriate to provide information whether there has ever been any study on home storage of medicines in China, or any documented or undocumented background (empirical) as to why this study was necessary in the communities in China. In other words the need to provide a clear motivation for carrying out this study.

Response:
We would like to apologize for missing the status about the home storage of medicines in China. In the past 20 years, China has experienced unprecedented socio-economic development, but its level of medical supervision lags behind that of many western countries. This is mainly due to its inadequate health infrastructure including insufficient medical supplies and doctors compared with China’s large population. It is difficult for the medical product suppliers and doctors to supervise all uses of medicines in the home. The practice of storage of medicines in homes in such environments is more likely to be seen as an avenue to improve access to medicines and immediate health care among the population: however, the implications of having medicines in homes have not been fully quantified in most parts of the world, especially in China. We found few studies on the home storage of medicines in China. Therefore it is important to carry out this study.

Correction in the revised manuscript:
We have provided a clear motivation for carrying out this study in China. Please see Background
3. Under Methods Section –
(1) Please explain whether pretesting of the questionnaires among community members also part of the pilot testing among professors and doctors. If different, what did you do with the results from both?
Response:
The pretesting of the questionnaires among community members are not part of the pilot testing among professors and doctors. But the results from the specialists and head of each household are similar such as adding Q16 and Q17.
Correction in the revised manuscript:
We have explain the details. Please see 2.2 Questionnaires and data collection section, page 4 to 5.

(2) What was the sample size of your study? One sees that under section 3.1 Sample profile you have the figure 625/1000 - where did the figure 1000 come from? Was 1000 predetermined as the sample size, if so, how was it calculated? And did it satisfy the power of your study? The study population has also not been well described. It is also not clear who conducted the study and how the study participants were identified.
Response:
With the assistance of community service managers, we randomly sampled 1000 households from the communities according to community population information registration forms. And we received 625 completed and usable questionnaires. We think the sample size of 625 households could satisfy the power of our study. We make the assumptions as follows:
- Use the simple random sampling SRS;
- Confidence level is 95% and the quantile value of the corresponding standard normal distribution is $Z=1.96$;
- The expected margin of error is $e=\pm 5\%$;
- Suppose the variance is the largest one: $P=0.5$;
- The estimated response rate is 65%, $r=0.65$;
The calculation procedure of the sample size is as follows:
(1) The initial sample size: 
Design effect adjustment: Use simple random sampling, the design effect is $B=1$. ;
The final sample size is determined according to the estimated response rate:.
Our final usable questionnaire size (625) is larger than the calculated sample size (594). Therefore, the sample size is sufficient to reflect the overall effect of the sample.
Moreover, we have provided a table to describe the socio-demographic characteristics of respondents to describe the study population.
Correction in the revised manuscript:
The description of the sample size of our study please see 3.1 Sample profile section, paragraph 1, page 7.
The socio-demographic characteristics of respondents please see 3.1 Sample profile section, Table 1.

(3) It is not easy to understand the choice of options provided for the study participants in the Likert type scale where the key object of choice is "attention"! You could explain better why you chose 'attention' as the operating scale for measurement.
Response:
“Attention” which was used in our study means the level to which survey respondents pay attention to the home storage of medicines. It was used to evaluate the respondents’ medicine home storage behaviors. It is difficult to measure the respondents’ medicine home storage behaviors because it is
difficult for us to monitor the respondents’ medicine home storage behaviors for their privacies. In contrast to other previous studies which assume the storage status of home medicines as a measurement standard, our study considered a new viewpoint and used a 5-point Likert type scale to measure the attitudes to home medicine storage. Therefore, it is a good way to measure the respondents’ medicine home storage behaviors by evaluating their attention given to the medicine home storage.

Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, paragraph 2, page 5.

(4) Under data analysis - the statistical/analysis tests used may not provide meaningful results since prior values were not set. E.g. the use of Kaiser-Meyer-Olkin (KMO) test for adequacy of sample size, yet the sample size was not calculated from the outset in the study design. In addition the KMO value was reported as being high (0.865) which would have required a factor analysis, and it is not clear whether this was carried out.

Response:
We think the sample size of 625 households could satisfy the power of our study. We make the assumptions as follows:

- Use the simple random sampling SRS;
- Confidence level is 95% and the quantile value of the corresponding standard normal distribution is Z = 1.96;
- The expected margin of error is $e = \pm 5\%$;
- Suppose the variance is the largest one: $P = 0.5$;
- The estimated response rate is 65%, $r = 0.65$;

The calculation procedure of the sample size is as follows:

1. The initial sample size: 
   
   Design effect adjustment: Use simple random sampling, the design effect is $B = 1$.
   
   The final sample size is determined according to the estimated response rate.

Our final usable questionnaire size (625) is larger than the calculated sample size (594). Therefore, the sample size is sufficient to reflect the overall effect of the sample. Moreover, the factor analysis have been added in the research.

Correction in the revised manuscript:
The sample size calculation please see 3.1 Sample profile section, paragraph 1, page 7. The factor analysis please see 2.3 Data analysis section, paragraph 2, page 6.

4. Under Results Section

(1) The demographic factors could have been better presented in the form of a table.

Response:
We have provided a table to describe the socio-demographic characteristics of respondents to describe the study population.

Correction in the revised manuscript:
The socio-demographic characteristics of respondents please see 3.1 Sample profile section, Table 1.

(2) It is not easy to appreciate the classification of the medicines as presented in the study: Were the medicines presented in the study all "hallopathic medicines" i.e conventional/western medicines? Could the study participants have reported on some "homeopathic medicines" i.e. natural/traditional medicines? The type of medicines considered in the study should be well defined as some commercial homeopathic medicines are possibly used and stored at home.

Response:
The medicines investigated in the survey were classified according to the Chinese Pharmacopoeia (2015): we chose 14 types by investigation of several large hospitals and pharmacies. Some medicines that are not often used or purchased have been removed following suggestions from the 20 specialists.
who evaluated the questionnaire. But some of the types include both conventional/western medicines and natural/traditional medicines. For example, Chlorphenamine Maleate belongs to conventional/western medicines. Small chaihu granules belong to natural/traditional medicines. Both of them are cold medication. But their effects are different. Chlorphenamine Maleate are used for relieving sinus symptoms. Small chaihu granules are used for bringing down the fever.

Correction in the revised manuscript:
Please see 3.2 Prevalence of home storage of medicines section, line 3 to 5, page 7 and line 1 to 2, page 8.

(3) Reviewing the questions presented in the survey, some questions (Q 13, 16, 17 and 19) are not clear thus making their value in the study questionable.

Response:
We are very sorry for our negligence of the detailed discussion for some questions (Q 13, 16, 17 and 19). For Q13, many medicines will lose their potency if allowed to absorb moisture: because this causes hydrolysis thus rendering them ineffective. These medicines should be carried out dry preservation. For Q16, it is vital to medicine home storage because in the daily life we often encounter a variety of patients with acute illnesses. If we cannot give the medicines to the patients in the first place, the consequences would be unimaginable. Therefore, the patients should pay most attention to the placement of first aid medicines. For Q17, although external medicine is safe to use it topically, it is often irritating, corrosive, or toxic if taken orally. For children’s medicine, the doses given to children vary greatly from those recommended for adults. If put together with adult medicine, the child may take the wrong medicine or be overdosed. Therefore, mixing of medicines, for example, internal and external medicines or adult and child medicines, should be paid most attention to. For Q19, the expired medicines are likely to lead to medicine abuse and environmental pollution. Therefore, special recycling mechanism are required in China urgently.

Correction in the revised manuscript:
Please see 3.3 Storage and disposal of medicines kept in households section, paragraph 1 and 2, page 9 and paragraph 1and 2, page 10.

5. Discussion
This is largely a repeat of what has been presented in the results section. One would have loved to read arguments on or synthesis of the various factors on the actual problem of irrational use of medicines as a result of home storage of medicines. This does not come out clearly since the effects of home storage of medicines have been presented in previous publications some of which were sited in this study. Are there any specific risks that are presented by the various factors as far as home storage of medicines are concerned in causing inappropriate use of medicines and the attendant dangers for this?

Response:
We have removed the repeated sentences presented in the results section and added some specific risks which caused by inappropriate medicine home storage. We clarified the references sited in our study in details, and made some comparisons and arguments.

Correction in the revised manuscript:
Please see Discussion section, page 13 to 20.

6. Conclusion
As a result of poor synthesis of the results, the conclusion as presented appears to be speculative, unclear, and could not possibly be from the results of this study. The authors are advised to look again at the results and then present conclusions derived from the findings of this study, and make some recommendations as appropriate.

Response:
We have rewritten the results and presented conclusions derived from the findings of this study. Moreover, some suggestions were provided to the health care providers to prevent the risks caused by improper medicine storage behaviors appropriate.

Correction in the revised manuscript:
Please see Conclusion section, page 20.

Responses to the comments of reviewer 2:

1. The authors have not applied relevant inferential statistic for the analysis of their dataset. They have just interpreted their findings in figure form (which could have been shown in tabular form for better illustration). Other comments have been given with this peer review.
Response:
We have applied inferential statistical analysis in the revised manuscript. The multivariable logistic regression models were added. And the figures have been replaced by tables.
Correction in the revised manuscript:
The inferential statistical analysis please see Section 3.5, page 13 and Additional file 2 Results of multivariable logistic regression section.
The tables please see Table 1 to Table 4, and Additional file 1 and 2.

2. General comments:
(1) Use proper subject-verb agreement with the word 'data'.
Response:
We would like to apologize for the improper subject-verb agreement with the word 'data'. We have revised the mistakes.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, line 6, page 4.
(2) Antibiotics automatically refer to medicines; no need to write 'antibiotics medicines'.
Response:
We have verified the mistake and changed 'antibiotics medicines' into 'antibiotics'.
Correction in the revised manuscript:
Please see 3.2 Prevalence of home storage of medicines section, line 5, page 8 and Table 2.

3. Specific comments:
Title: Since most of the questions (from question 8 to 19) were focused on identifying the level of attention to medication related issues, it would be better to elaborate them on title.
Response:
We have changed the title into ‘Factors influencing the attention to home storage of medicines in China’.
Correction in the revised manuscript:
Please see the title.

4. Methods:
(1) Elaborate upon sampling technique, sample size calculation with basis (both households and respondents). It is not clear how many respondents were there from each households.
Response:
With the assistance of community service managers, we randomly sampled 1000 households from the communities according to community population information registration forms. We didn’t calculate it. We only received 625 completed and usable questionnaires. I think the sample size of 625 households
could satisfy the power of your study. We think the sample size of 625 households could satisfy the power of our study. We make the assumptions as follows:
   - Use the simple random sampling SRS;
   - Confidence level is 95% and the quantile value of the corresponding standard normal distribution is \( Z=1.96 \);
   - The expected margin of error is \( e=\pm 5\% \);
   - Suppose the variance is the largest one: \( P=0.5 \);
   - The estimated response rate is 65\%, \( r=0.65 \);

The calculation procedure of the sample size is as follows:
1. The initial sample size: \\
   - Design effect adjustment: Use simple random sampling, the design effect is \( B=1 \).
2. The final sample size is determined according to the estimated response rate:

Our final usable questionnaire size (625) is larger than the calculated sample size (594). Therefore, the sample size is sufficient to reflect the overall effect of the sample.

Moreover, in each household, data were collected from the head of household (only one person), when present at home.

Correction in the revised manuscript:
The sampling technique please see 3.1 Sample profile section, paragraph 1, page 7.
The details about the respondents from each households please see Abstract section and 2.2 Questionnaires and data collection section, paragraph 3, page 5.

(2) The authors have not applied any inferential statistical analysis, in the absence of which the conclusions are not trustworthy.
Response:
We have applied inferential statistical analysis in the revised manuscript. The multivariable logistic regression models were added.
Correction in the revised manuscript:
Please see Section 3.5, page 13 and Additional file 2 Results of multivariable logistic regression section.

5. Study design: Clarify the number of persons from each households selected. It is not clear from the research.
Response:
In each household, data were collected from the head of household (only one person), when present at home.
Correction in the revised manuscript:
The number of persons from each households selected please see 2.2 Questionnaires and data collection section, line 20 to 22, page 5.

6. Questionnaires and data collection:
(1) The authors have mentioned "Data was collected using a structured questionnaire." Elaborate how the questionnaire was developed. Was it self-developed or adopted?
Response:
In a nutshell, for questionnaire design, Q8 and Q9 are posed on the basis of work by Ocan et al. [1], Q10, Q11, Q12, and Q13 are posed on the basis of work by Velieland et al. [5], Q14, Q15, Q18, and Q19 are posed on the basis of work by Ocan et al. [1] and Velieland et al. [5]. Q16 and Q17 are suggested by collating opinions among (20/65) households in the pre-tested households (65/625) and 20 specialists.
Correction in the revised manuscript:
The authors have mentioned "The questionnaire was pretested on … not useful were removed." It is customary practice to pretest in 10% of the projected sample size. Also, elaborate upon the province and study population where the pretesting was performed. Was it performed on the similar situation or matched population where the final study was carried out?
Response:
The questionnaire was the pre-tested on the sixty-five households (65/625) in Hunan province which belong to the six investigation province. The data were collected from the head of household in each household, when present at home. And it was performed on the similar situation and matched population where the final study was carried out. Moreover, we consulted with twenty households (20/65) and twenty specialists in order to improve the questionnaire.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, page 4 to 5.

Elaborate which question was added later after pretesting was finished.
Response:
Q16 and Q17 were added later after pretesting was finished.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, page 4 to 5.

The authors have mentioned "Useful information that had not … developing additional questions." Elaborate which question was added later after pretesting was finished.
Response:
Q16 and Q17 were added later after pretesting was finished.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, page 4 to 5.

The authors have mentioned "In contrast to other previous studies … status of home medicine storage [1,2,5]" and "A total of 20 questions were used … status of home medicine storage." Likert scale generally gives the measure of attitude; not measure of status.
Response:
We would like to apologize for the improper use of the word “status’. We have changed it into “attitude”.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, line 12, page 5 and line 18, page 5.

The authors have mentioned "For pilot testing, the questionnaire was sent … medical schools and medical logistics specialists." Elaborate upon those hospitals and medical schools.
Response:
For pilot testing, the questionnaire was sent to 20 specialists including doctors from the top three hospitals, including Hunan Provincial People’s Hospital and Xiangya Hospital of Central South University, pharmacists, Professors in medical schools, including the Medical School of Hunan Normal University and Xuzhou Medical College, and medical logistics specialists from Central South University of Forestry and Technology as well as Beijing University of Chemical Technology. They were independent of the present research.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, paragraph 1, page 5.

Elaborate upon the timing of data collection mentioned in the sentence "In each household, data was collected … time of data collection."
Response:
In each household, data were collected from the head of each household when present at home between March and April 2018.
Correction in the revised manuscript:
Please see 2.2 Questionnaires and data collection section, line 20 to 22, page 5.

7. Data analysis:
(1) Elaborate upon the version of SPSS mentioned in the sentence "SPSS was used for data analysis."
Response:
The version of SPSS is SPSS21.0.
Correction in the revised manuscript:
Please see 2.3 Data analysis section, line 1, page 5.

(2) The authors have mentioned "The descriptive statistics was used to analyze the demographic characteristics of the respondents and then factor analysis was conducted." Elaborate upon the 'factor analysis'.
Response:
The factor analysis have been added in the research.
Correction in the revised manuscript:
Please see 2.3 Data analysis, paragraph 2, page 6.

(3) The authors have mentioned "The validity of this study was ensured by … then evaluated by 20 specialists." How these specialists were selected and were they independent of the present research?
Response:
These specialists were selected according to three rules: first, they were selected from famous hospitals and medical schools in China, second, they were familiar with the nature of the home storage of medicines in China, and third, they were professors with excellent reputations in the disciplines of medicine and pharmacy. Moreover, they were independent of the present research.
Correction in the revised manuscript:
Please see 2.3 Data analysis, paragraph 2, page 6.

(4) The statement "Reliability was established by estimating the Cronbach's Alpha value" has been redundant.
Response:
We would like to thank the reviewers for the valuable suggestion. We have removed this sentence.
Correction in the revised manuscript:
Please see 2.3 Data analysis.

(5) Rewrite the sentences "The Cronbach's Alpha value or internal consistency value … suggested minimum values of 0.6 [9,10]" in logical order.
Response:
We would like to apologize for the illogical order of the sentences. We have rewritten the sentence as follows:
The Cronbach’s alpha-value for all the factors was determined to be 0.848, where a Cronbach’s alpha-value above 0.70 indicates that the output is reliable [9,10].
Correction in the revised manuscript:
Please see 2.3 Data analysis, line 10 to 12, page 6.

8. Results
Sample profile
(1) Elaborate upon 'usable questionnaires were received' and '62.5% (625/1000)' mentioned in the
sentence "At the end of the period, after removal of duplicate responses, a total of 625 completed and usable questionnaires were received, equating to a response rate of 62.5% (625/1000)."
Response:
With the assistance of community service managers, we randomly sampled 1000 households from the communities according to community population information registration forms. At the end of the period, after removal of incomplete responses, a total of 625 completed and usable questionnaires were received, equating to a response rate of 62.5% (625/1000).
Correction in the revised manuscript:
Please see 3.1 Sample profile section, paragraph 1, page 7.

(2) The authors have mentioned "The majority of respondents, 61.9% (387/625) in the households visited were females." Elaborate where were males in the households.
Response:
We have provided a table to describe the socio-demographic characteristics of respondents to describe the study population, including males and females.
Correction in the revised manuscript:
The socio-demographic characteristics of respondents please see 3.1 Sample profile section, Table 1.

(3) No need to explain all age groups, education level and family members in the sentences "In terms of age groups, 78.4% (490/625) of respondents …1.4% (9/625) of households had only one member." Just show them in table.
Response:
We have provided a table to describe the socio-demographic characteristics of respondents to analyze the study population in details and removed redundant sentences.
Correction in the revised manuscript:
The socio-demographic characteristics of respondents please see 3.1 Sample profile section, Table 1.

9. Prevalence of home storage of medicines:
(1) Specify 'external painkillers' and 'external anti-inflammatory antidotes'.
Response:
We Specify 'external painkillers' and 'external anti-inflammatory antidotes' in annotation 1 and 2. Painkillers includes external use and internal use. External painkillers are mainly used for bruising injury, blood stasis, rheumatism, and joint pain. Most of them are sprays, such as Yun nan bai yao spray. External anti-inflammatory antidotes are mainly used for swollen furunculus, such as acne ointments.
Correction in the revised manuscript:
In order to specify the 'external painkillers' and 'external anti-inflammatory antidotes'. We have made annotations for them. Please see annotation 1 and 2, page 8.

(2) Show the information mentioned in the sentences "The expiration date of medications is a vital factor in the home storage … but still needed more attention" in table.
Response:
We have provided a table to describe the attention to the home storage of medicines kept in the households, including the expiration date of medications.
Correction in the revised manuscript:
Please see 3.3 Storage and disposal of medicines kept in households section, Table 3.

(3) Gender: Show the information mentioned in "From analysis of variance, significant differences were … male respondents was better than that of females" in tabular form.
Educational background: Show the information mentioned in "The respondents who had been educated to … affect home medicine storage practices" in tables.
Age: Show the information mentioned in "Through the analysis of variance, significant differences … after 75 years of age, attention declined with age (see Figure 3)" in tables.
Occupation: Show the information mentioned in "From our data, significant differences amongst different occupations … all categories of medicines that are stored at home in China" in tables.
Family members: Rewrite the sentence "No significant differences were observed … home storage behaviors of medicines by analysis of variance (p<0.05)" clearly.
Response:
We have provided a table to show the variance analysis information about gender, educational background, age, occupation and family member.
Correction in the revised manuscript:
Please see 3.4 The differences of medicines home storage, Table 4.

10. Attention on the prevalence of home storage of medicines:
(1) The authors have mentioned "The information from this study is … presence of medicines in homes." Elaborate upon those risks.
Response:
We have elaborated upon those risks as follows:
The inappropriate use of medicines may lead to emergence of drug resistance where antimicrobials are misused, or the more general emergence of adverse drug reactions. Correction in the revised manuscript:
Please see 4.1 Attention on the prevalence of home storage of medicines section, line 2 to 4, page 13.

(2) Write the sentence "Antibacterial drugs (40.1%) are the most … in old Dutch patients [2,5]" clearly.
Response:
We have rewritten the sentence as follows:
According to Okumura et al. [2] and Vlieland et al. [5], antibacterial drugs (40.1%) are the most common medicines used in old Dutch patients.
Correction in the revised manuscript:
Please see 4.1 Attention on the prevalence of home storage of medicines section, line 6 to 8, page 13.

(3) Rewrite the sentence "As a result, more medicines home storage … were no longer used" clearly.
Response:
We have rewritten the sentence as follows:
The inappropriate use of medicines may lead to emergence of drug resistance where antimicrobials are misused, or the more general emergence of adverse drug reactions.
Correction in the revised manuscript:
Please see 4.1 Attention on the prevalence of home storage of medicines section, line 2 to 4, page 13.

(4) The authors have mentioned "This is a universal problem in other countries around the world [11-13]." How could you generalize that it was universal problem just based on three articles carried out in Mexico, UAE and Greece?
Response:
We would like to apologize for the mistake. We cannot generalize that it was universal problem just based on three articles carried out in Mexico, UAE and Greece. We have rewritten the sentence as follows:
This is a universal problem in some countries [11-13].
Correction in the revised manuscript:
Please see 4.1 Attention on the prevalence of home storage of medicines section, line 6, page 14.

(5) Rewrite the sentence "This may result in poorer medicine home storage behaviors" clearly.
Response:
We have rewritten the sentence as follows:
To relieve cold symptoms, large quantities of medicines are stored and some of them may be no longer used. This may result in poorer medicine home storage behaviors, such as taking time-expired medicines.
Correction in the revised manuscript:
4.1 Attention on the prevalence of home storage of medicines section, line 13 to 16, page 14.

11. Attention to the storage environment:
(1) Cite the reference to that evidence mentioned in the sentence "For the storage of refrigerated medicines, temperatures between 2 and 8°C are necessary as there is supporting evidence that medicine degrades rapidly."
Response:
We would like to apologize for missing the reference [5] from Vlieland et al.
Correction in the revised manuscript:
Please see 4.3 Attention to the storage environment, line 7, page 15.

(2) The authors have mentioned "Adverse medicine reactions may occur due to degraded medicines." Specify those reactions with specific examples.
Response:
Adverse medicine reactions may occur due to improper storage temperature. For example, antibiotics such as penicillin cephalosporin have poor stability and are easily weakened or rendered ineffective under improper storage temperature conditions. Taking them may cause the delay of disease progression.
Correction in the revised manuscript:
Please see 4.3 Attention to the storage environment, line 10 to 14, page 15.

12. Attention to home storage location:
(1) Rewrite the sentence "Most of the households had a home pharmacy to ... humidity and temperatures that may promote instability" clearly with simpler sentences. Also, specify 'home pharmacy'.
Response:
To specify 'home pharmacy', we use 'medicine chest' to replace it.
Moreover, we have rewritten the sentence as follows:
Most households had a medicine cabinet to keep medicines out of the reach of children. A high proportion of households considered the kitchen and bathroom as unadvisable sites for keeping medicines as they were at risk of exposure to high humidity and temperatures.
Correction in the revised manuscript:
Please see 4.4 Attention to home storage location, line 7, page 16 and line 1 to 3, page 17.

(2) Write the sentence "Other factors such as use of ... particularly elderly patients [21]" clearly.
Response:
We would like to apologize for the improper description. According to the context, we have removed
this sentence.
Correction in the revised manuscript:
Please see 4.4 Attention to home storage location.

(3) Rewrite the sentence "However, the difference was the age group was more than 75 years old" clearly.
Response:
We have rewritten the sentence as follows:
however, in our study attention declined after 75 years of age owing to decreased visual and cognitive impairment.
Correction in the revised manuscript:
Please see 4.6 Differences in socio-demographic characteristics section, line 23 to 24, page 19.

(4) Keep citations to those studies mentioned in the sentence "Occupation is also an important factor … focused on this aspect."
Response:
We would like to apologize for missing the reference [2] from Okumura et al.
Correction in the revised manuscript:
Please see 4.6 Differences in socio-demographic characteristics section, line 1, page 20.

(5) Rewrite the sentence "Okumura indicated that … confirmed in our current study" clearly.
Response:
We have rewritten the sentence as follows:
Okumura indicated that mothers play an important role in home storage practices [2], which was confirmed in our study.
Correction in the revised manuscript:
Please see 4.6 Differences in socio-demographic characteristics section, line 1 to 3, page 20.

13. Reference: Rewrite references 9 and 10 clearly.
Response:
We have rewritten references 9 and 10 as follows:
Correction in the revised manuscript:
Please see Reference section, page 22 to 23.

14. Additional files: Keep *Additional file 1, *STROBE checklist, *STROBE Statement because they are not contained in the manuscript.
Response:
We would like to apologize for forgetting to upload the STROBE checklist. We have uploaded the STROBE checklist as additional file 3.
Correction in the revised manuscript:
Please see the *Additional file 3, *STROBE checklist, *STROBE Statement section.
15. Figure 1: Specify the medications. You may keep them as supplementary file. Also, show frequencies.
Response:
We have showed the Major classes of medicines found in Chinese households in table as Table 2.
Correction in the revised manuscript:
Please see Table 2.

16. Figure 2 and 3: It would be better to show them in table with the associated frequencies and percentages.
Response:
We have changed the figures into tables.
We have showed the attention to the home storage of medicines as Table 3, and attention on home storage of medicines amongst different age groups as Additional file 1.
Correction in the revised manuscript:
Please see Table 3 and Additional file 1.