Author's response to reviews

Title: A study of home deaths in Japan from 1951-2002

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Author's response to reviews:

Cover letter
Re: Article No. 1276320553849831 -A study on home death in Japan from 1951-2002

Dear Sir:
Thank you very much for your letter of Dec, 6, 2005, with regard to our manuscript together with the comments from the two reviews. I am sending herewith our revised manuscript. We tried to revise the manuscript as much as possible in line with the suggestions made by the reviewers and yourself. According to your suggestion, we have made language correction by 'Manuscript Presentation Service'. Our reactions to each of the reviewer's comments are:

Reviewer 1
Major Compulsory Revision
1 Methods:
a) Because all the data used in this research came from published documents. It was a kind of summary or category table. No individual data such as death certification can be obtained. There was no category table in terms of place of death by age, causes and gender before 1980, so only data of between 1980 and 2002 were used for logistic regression. To emphasize this point, we rewrote the method more concisely. P.5, line 2, a sentence has been changed. P.6, line 5, some sentences have been added.
b) We accepted the suggestion from reviewer 2. In the reviewed manuscript, we used multiple regression directly, and give up factor analysis. We think it would become more clearly and easier to explain.
c) Table 1 (Variable resources) has been added.
d) We conducted Joinpoint regression analysis as a formal statistical evaluation for trend. Figure 1 has been changed, and table 2 has been added.
e) Because in this research we could not get death certification data at present. The number used in logistic regression model came from summary table, which only include 4 variables: age, gender and causes of death and death year. Geographic variables (urban/rural and region) were not included, so it impossible to put geographic variable into logistic analysis. We mentioned this point as a limitation in discussion. P.17, line 2 from bottom.
f) We believe that this suggestion may be based on a misunderstanding on the part of reviewers. Correlation analysis and multiple regression used in this paper were kinds of ecological analysis. In multiple regression, we used the home death rate as independent variable, and the number of hospital in 47 prefecture etc. as dependent variables. It impossible to include the age, gender and causes of death into the multiple regression, because it was not death certification data. We must admit the method used here had some limitations, which were mentioned in discussion. Although by this way these relationships seem not strongly, we still believe it could provide us some implied correlations.
g) Concerning the characterization of data used in this research, at present, we do not have death certification data, so, we can not put all risk factors into a model simultaneously. Works for testing these relationships had to be divided into two parts. The aim of logistic regression was to clarify the effect of age, gender and causes of death on home death. In multiple regression we hypothesized the variables regarding social and medical services had relationships with place of death. Some sentences have been changed in term of this point. P.7, line 5, and P.7, line 5 from bottom.
2. Results:
a) Figure 1 has been changed, and figure 1D have focused on the change of home deaths by age.
b) Factor analysis has been canceled. Detailed explain for multiple regression model fit has been added. P.11, line 1
c) Table 5 has been changed as suggested, and R2 changes have been added into the table.
3. Discussion:
a) I believe your question mentioned above (methods b) is reasonable. There are really some overlaps in FC1 and FC4. In the reviewed manuscript we cancel factor analysis.
b) We changed some explanations regarding geographic variable in discussions. P.14, line 1 from bottom.
c) Please see our explanations for question (methods f).
d) Regarding implications, some sentences have been added in P.18, line 7 from bottom.

Minor essential revisions
1. P.7, line 5 from bottom. The sentence has been changed as suggested.
2. Figure1A has been changed as suggested.
3. The table in term of logistic regression has been reconstructed as requested.

Reviewer 2
Minor essential revision
1. We explained the means of some facilities appeared in our paper, P.5, line 8.
2. The table in term of logistic regression has been changed as suggested.
3. We accepted the suggestion in your comments. In reviewed manuscript, we used multiple regression directly, and give up factor analysis. We thought it would become more clearly and easier to explain.

Discretionary revision
1. We accepted your advice. Factor analysis has been cancel in the reviewed manuscript.
2. I appreciated your comment on this point. If we can get death certification data or other data on individual level, we will try it in the future.

I hope that these revisions are satisfactory and that the revised version will be acceptable for publication in BMC palliative care.
Sincerely yours
Limin Yang
Dec 26, 2005