

## Peer Review Report

# Review Report on Financial hardship on food security in ageing populations

Original Article, Int J Public Health

Reviewer: Patricio Valenzuela

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### EVALUATION

#### **Q 1** Please summarize the main findings of the study.

Using a nationally representative sample survey of individuals aged 60 years or older in Thailand, this study explores the relationship between food security and financial fragility. The main findings of the study are that individuals with high levels of debt, income and financial problems are less likely to have food security.

#### **Q 2** Please highlight the limitations and strengths.

The study of the relationship between food security and financial fragility is interesting and has very important policy implications. However, the empirical analysis is too simplistic and not very rigorous. I also feel we can learn more from additional analyses and results. I hope my comments—intended to be constructive and to further enhance the contribution of the manuscript—are useful to the authors.

#### **Q 3** Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Comments:

My first main concern is associated with the empirical specifications of the econometric models. Employment status, debt burden, income problems, and financial dissatisfaction are highly correlated. Therefore, some of these effects may be absorbing the effects of the other variables. I would like to see Table 5 with each of these variables at the time, and a final model with all these variables included simultaneously.

My second concern is related to potential biases from geographical omitted variables. I suggest the authors control for district dummy variables to control for different locations that may affect simultaneously both financial fragility and food insecurity. The coefficients on the districts do not need to be reported. Also, to improve the explanatory power of the model, the author may consider age dummy variables rather than age categories.

My third concern is associated with obtaining more insights from the data. Although the paper finds a significant relationship between food security and financial fragility, it is likely this effect is not homogeneous. For example, the paper argues that women have a lower priority for consumption. This should not be an issue on households without financial problems. So, rather than treating the effect of gender and financial fragility as independent determinants of food insecurity, the authors may explore the interaction of these variables. To do so, the econometric specification should consider gender, financial fragility, and the interaction of these variables. The results may suggest that the effect of financial fragility on food security is particularly pronounced for women.

In line with the previous comment, the authors may explore whether the effect of financial fragility on food insecurity is heterogenous in other variables such as sex, age, marital status, place of residence, and education attainment.

Minor Comments:

In the introduction the paper should show statistics of old-age dependency rates to emphasize the relative population ageing transition in Thailand.

The paper mentions that "In Sub-Saharan Africa 6.0% to 87.3% of households with older persons experienced severe food insecurity, and 8.3% to 48.5% had moderate food insecurity." Please, mention the countries at the different levels.

Tables 1, 2 and 3 should go to the appendix.

The following papers that explore issues related with population ageing and financial fragility may be relevant to motivate this paper:

- 1) Financial Distress and Psychological Well-Being During the COVID-19 Pandemic, (Florencia Borrescio-Higa, Federico Droller, and Patricio Valenzuela), International Journal of Public Health, 2022.
- 2) Does Education Mitigate the Effect of Population Aging on Health Expenditure?: A panel data study of Latin American Countries (Florencia Borrescio-Higa and Patricio Valenzuela), Journal of Population Aging and Health, 2021.

#### PLEASE COMMENT

##### **Q 4** Is the title appropriate, concise, attractive?

I think something like "Financial hardship on food security in ageing populations" is more concise and more interesting to a broad readership. It is also more appropriated. The current version of the paper does not explore a causal effect to use the word "impact" and the word "negative" makes the title less attractive.

##### **Q 5** Are the keywords appropriate?

Yes, they are appropriate.

##### **Q 6** Is the English language of sufficient quality?

Yes, it is.

##### **Q 7** Is the quality of the figures and tables satisfactory?

Yes.

##### **Q 8** Does the reference list cover the relevant literature adequately and in an unbiased manner?

I think the paper covers a comprehensive list of relevant papers on the literature. I would suggest to also include the following papers:

- 1) Financial Distress and Psychological Well-Being During the COVID-19 Pandemic, (Florencia Borrescio-Higa, Federico Droller, and Patricio Valenzuela), International Journal of Public Health, 2022.

2) Does Education Mitigate the Effect of Population Aging on Health Expenditure?: A panel data study of Latin American Countries (Florencia Borrescio-Higa and Patricio Valenzuela), Journal of Population Aging and Health, 2021.

#### QUALITY ASSESSMENT

<b>Q 9</b>	Originality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q 10</b>	Rigor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q 11</b>	Significance to the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q 12</b>	Interest to a general audience	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q 13</b>	Quality of the writing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q 14</b>	Overall scientific quality of the study	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### REVISION LEVEL

**Q 15** Please make a recommendation based on your comments:

Major revisions.