

Psychometric Evaluation of the Chinese Version of the Minnesota Living with Heart Failure

Reviewer #1	
<p>Reviewer #1: CHF is a major problem in the US and, as pointed out by the author, a rising problem in China / Taiwan. Cross cultural studies are of importance. Instrument development and testing is a crucial step in advancing our knowledge. I therefore think that this study is of importance and should be of interest to nursing scientists in this area of research. It was generally well written/organized and used a well-accepted method of translation.</p> <p>I do not think the study itself has any major weaknesses. However, I do believe that the paper itself could be significantly strengthened in some of the following ways:</p> <p>Although I am not an expert in Chinese linguistics, I am aware of the fact that there are several dialects spoken, and that the written form of the language is also expressed in different ways. According to information on the Web site of the Republic of China (Taiwan) Government Information Office (http://www.gio.gov.tw/taiwan-website/2-visitor/quicklook/3_people/people1_2.html), Mandarin Chinese is Taiwan's primary language, is widely used in spoken language, and is the one taught in schools as part of learning to write Chinese characters. However, the Web site also points out that Taiwanese is increasing in use, The Hakka dialect is spoken by a significant minority of Taiwanese. Apparently, during the Japanese occupation of Taiwan, particularly during the period 1940-1945, Japanese was the official language of Taiwan, and that is the language that was taught in school.</p> <p>Because of the language variability, I think it would be</p>	<p>As you said, Mandarin is Taiwan's language, and Taiwanese, Hakka, and Japanese are also used in some particular population. But the MLHFQ (English and Chinese version) is a self-administered tool, so, the influence of different languages is limited. The other thing is there is less than 2% people who did not receive formal education, so I don't really worry about lots of people who could not complete this questionnaire because they could not read. Even they did not have formal</p>

<p>very important for the author to address the language used for the translation. Why was this picked? Is this translation appropriate for all Taiwanese, or only certain groups? Which groups are excluded by this language? Those who were educated under Japanese rule were taught written Japanese. Since the average age of the respondents in this study was 68, many of these would have learned this Japanese. This question seems of particular importance given the extremely limited education of these subjects - 62 % had less than a high school education. What was their reading ability in any language? Are the subjects who could read the questionnaire, in whatever language was used, representative of all Taiwanese who have congestive heart failure?</p> <p>A related issue has to do with how healthcare is financed in Taiwan. Apparently (again according to the government Web site cited above), Taiwan has had <u>national health insurance since 1999</u>. The rate of doctor visits and hospitalizations is higher than in most western countries. <u>I think it would strengthen the paper if some of this type of information was included</u>, to put the study in context. For instance, given some of the societal differences between Taiwan and the US, I would expect the questionnaire to have a significantly lower validity in certain areas, particularly in the area of concerns about money. Similarly, most of the subjects are over the age of 65, the usual retirement age in the US. No information was provided on the employment of the subjects - were they retired? Disabled? Still working fulltime or part-time? How do Taiwanese finance their retirement? This information would help to put the employment question in the instrument into perspective.</p> <p>Doris et.al. published a paper titled "Translation of the</p>	<p>education; mostly they can read some easy Chinese characters.</p> <p>In my study, just one person could not read Chinese characters, so he is excluded from my study.</p> <p>I know (or guess) the rate of doctor visits and hospitalization rate are higher than most western countries. But I did not have evidence-base to explain that.</p> <p>Because the national health insurance in Taiwan, mostly patients do not need to pay any money regarding examinations, medications, operations, or hospitalization. (Mostly they just need to pay a little money for meal---less than 10 US dollar for one day).</p> <p><input checked="" type="checkbox"/>.</p>
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<p>Chronic Heart Failure Questionnaire" (Applied Nursing Research 10(4):278-283, 2003), which also translated a chronic heart failure questionnaire into Chinese. The instrument was not the Minnesota LWHFQ and the subjects were in Hong Kong, rather than Taiwan. I realize that the present study was probably performed, or at least not completed, prior to the publication date of that study. However, it would be good to reference this paper and compare and contrast the two. The present study did a much better job of analyzing the psychometric properties of the questionnaire. However, the Doris study did a better job of explaining the translation process - again something that might be added to this paper to strengthen it.</p> <p>Similarly, Heo et al. published a paper titled "Testing the Psychometric Properties of the Minnesota Living with Heart Failure Questionnaire" in Nursing Research (54(4):265-272, 2005). Again, this was probably published after most of the present work had been completed. I think the present report could be strengthened by referring to this study.</p> <p>I think a statistical review is merited, since the primary purpose of the study is psychometrics.</p>	<p><input checked="" type="checkbox"/></p> <p>(1) I had consulted one statistician in Taiwan who is a University teacher and taught statistics for many years; (2) the third author in this article is my statistics teacher in my PhD program.</p>
<p>Reviewer #2: Psychometric Evaluation of the Chinese Version of the Minnesota Living with Heart Failure Questionnaire</p>	
<p>This manuscript describes the translation into Chinese and the psychometric testing of the Chinese translation of the Minnesota Living with Heart Failure Questionnaire in a sample of subjects in Northern</p>	

<p>Taiwan. The authors point out that chronic diseases, including heart failure, are becoming more prominent in Taiwan. The authors found that the questionnaire could be translated and applied to heart failure patients living in this area.</p>	
<p>The article is generally very well organized and written. It does, however, need to be edited by a native English speaking editor. There are a number of incomplete sentences and issues related to tense, etc. I do not feel that these issues preclude publication.</p>	<input checked="" type="checkbox"/>
<p>Specific Recommendations: Rework the first paragraph of the background. The first sentence says that Heart disease is a leading cause of morbidity, etc. in Taiwan and then the second sentence says the same thing. I think, however, that the American Heart Association reference only refers to incidence in the US. Make this distinction. The sentence starting on line 6 (heart disease.) should be combined with the sentence after it.</p>	<input checked="" type="checkbox"/>
<p>Page 5 lines 9 - 11. Several methods of testing the MLHFQ have been mentioned. Is there an advantage of one method over another? Is there a preferred method?</p>	<p>I really think different methods for different purpose. In this study, I used exploratory factor analysis (EFA) because the primary goal is to establish a Chinese version instrument.</p>
<p>Page 9 Lines 18 and to next page. This concept about (the standard error of a) correlation being a function of the sample size, etc is difficult to understand as it is written. Please break it into smaller sentences (concepts) and add a reference.</p>	<input checked="" type="checkbox"/>
<p>Page 11 Lines 8&9 Please explain more completely</p>	<input checked="" type="checkbox"/>

<p>how the low missing data rate is related to the design of the original questionnaire.</p> <p>Table 4 No need to have $p < .05$, $p < .01$ in the legend for the table if you aren't using these levels of significance.</p> <p>Page 13 Line 4 I see that only 19 of the 21 items demonstrated moderate to strong loading. Please double check.</p> <p>Table Numbering. Tables should be numbered in order of their appearance in the manuscript. Table 3 is the last one mentioned and therefore should have the highest number. Please renumber the tables.</p> <p>Page 15 - Combine the sections Item-to total correlations and Inter-item correlations into one section called Correlations.</p> <p>Page 16 lines 6 - 8. Combine these two sentences to make the text flow better.</p> <p>Page 17, Line 3 & 4. Please say more about Taiwan's medical care system. Do individuals have any out of pocket expenses for health care? Is everything covered by one insurance premium with no co-payment? The question about cost may not really apply. In other words, can you explain why it was statistically eliminated?</p> <p>Page 29 (references) Please include year in Brislin reference.</p> <p>Congratulations on a very good manuscript!</p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>
<p>Reviewer #3: Psychometric evaluation of the Chinese version of the Minnesota Living with Heart Failure Questionnaire</p>	

The authors have addressed the importance of developing a Chinese version of the MLHFQ. There is a significance of conducting a psychometric evaluation of this tool applied to a different population.

One issue the authors did not address clearly is the criteria for supporting the validity evaluation. For example, for construct validation, the authors mentioned that results of the exploratory factor analysis support the 3 factors construct validity. The issue is that whether 3 factors model can be considered as the gold standard is questionable. From line 11 to 13 on p.5 stated that different studies found different number of factors ranging from 2 to 4 factors. If this is the case without further discussion, how can the authors determine that 3 factors is the right way to be used as the gold standard.

In Background section, this paper will be strengthened by adding literature related to validity evaluation. For example, in discussing the convergent validity on p.12, the authors stated that by correlating the Chinese version of MLHFQ with other measurements including NYHA classification, LVEF, and SF-36 will indicate the convergent validity. Are there any theoretical support on these statements or this is based on researchers' experience. These issues need to be addressed in literature review.

The authors also need to address the theory of quality of life. They did not clearly differentiate the difference between cardiac performance and health related quality of life. pp8-9 and p.7.

In general, methodological section is well thought and implemented.