

Cultural Adaptation of the Alcohol Quality of Life Scale for Use in Japan, China, and Korea

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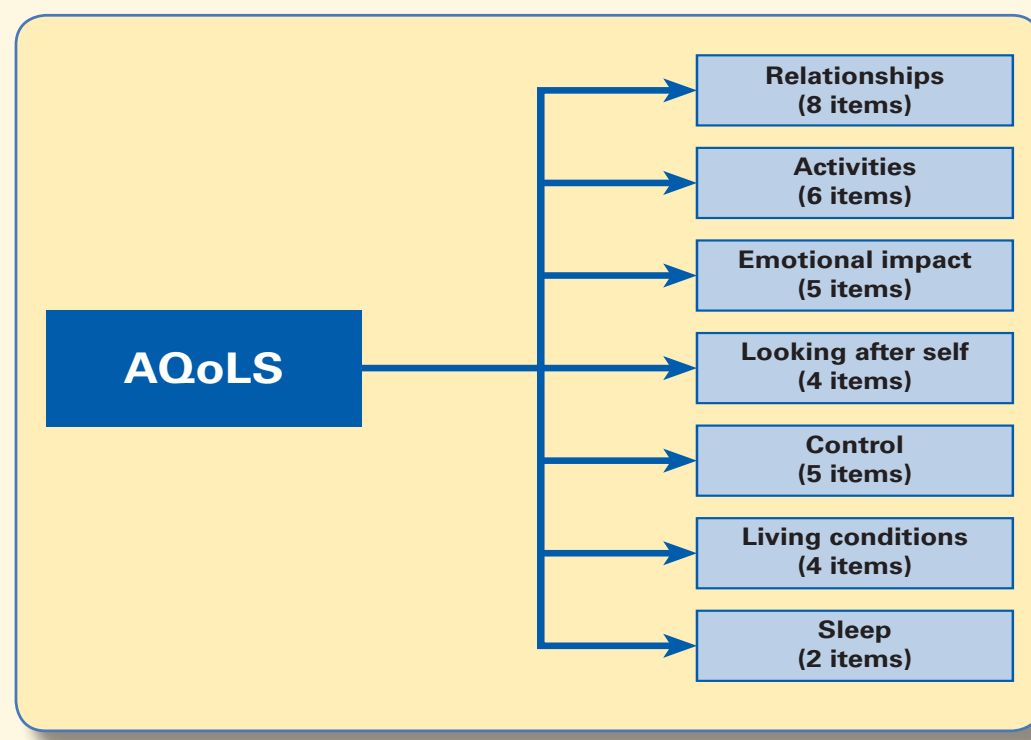
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BACKGROUND

- Rising levels of alcohol consumption and increased prevalence of alcohol use disorder (AUD) in Japan, China, and Korea are a major public health concern, with considerable socioeconomic implications.^{1,3}
- The Alcohol Quality of Life Scale (AQoLS) is a new patient-reported outcome (PRO) measure of health-related quality of life (HRQOL) in AUD.⁴ It has 34 items across seven domains (Figure 1). Each item has four response categories (not at all, a little, quite a lot, and very much), with a 4-week recall period.
- The AQoLS was developed from concept elicitation focus groups and cognitive debriefing interviews with patients with AUD in the United Kingdom (UK) and France. The development also included a formal translatability assessment by translation experts to ensure the items were amenable to translation and cultural adaptation.

Figure 1. The Alcohol Quality of Life Scale (AQoLS)



OBJECTIVE

- To translate and culturally adapt the AQoLS for use in Japan, China, and South Korea.

METHODS

- The adaptation methodology was designed to maximize the conceptual equivalence between the new language versions and the original source UK-English instrument, while using everyday language appropriate to the target culture.
- The cultural adaptation process had three key stages: initial translation, lay assessment, and patient review.

Initial Translation

- Translation into the target language was done using a forward-back translation methodology aided by a comprehensive instrument codebook.

- The process in each country involved the following:

- Forward translation and reconciliation: Two translators who were native speakers of the target language independently translated the questionnaire and then produced a consensus version.
- Backward translation: A third translator produced a backward translation of the consensus translated measure into English.
- Backward translation review: The English backward translation was compared with the original source UK-English language version.
- Conceptual equivalence review: Discussions were held with the three translators to review the consensus translated version of the measure in relation to the original UK-English and backward translation versions of the measure.

Lay Assessment

- The initial translation was reviewed with a group of individuals from the general population in the target country.

- The focus was to ensure cultural appropriateness of the language register and item content.

Patient Review

- Individual cognitive debriefing interviews were conducted with patients with AUD in each target country to assess the face and content validity of the translated measures.
- Patients were required to meet the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) diagnostic criteria for alcohol abuse or dependence (either current or remitted), as assessed by the Mini-International Neuropsychiatric Interview 6.0.⁵

RESULTS

Overview of Adaptation Process

Initial Translation

- Preliminary translations of the AQoLS into Japanese, simplified Chinese, and Korean were produced with little difficulty for most items.

- Where a consensus item translation could not be agreed, alternative formulations were taken forward for evaluation in the lay assessment (2 items in China and Korea).

Lay Assessment

- One lay panel was conducted per country for China and Korea, and two panels were held in Japan (Table 1).
- Participants in the lay panels in each of the target countries found the initial translations of most of the AQoLS items to be clear, easy to understand, and appropriate to their culture.

Table 1. Demographic Characteristics of the Lay Panel Participants

Sample Characteristic		Japan (n = 8)	China (n = 5)	Korea (n = 5)
Age, years	Median	34	42	45
	Range	20-59	27-50	39-65
Sex, n	Male	4	3	3
	Female	4	2	2

Patient Review

- Between 8 and 12 patients with AUD participated in the cognitive debriefing interviews in each country (Table 2).
- Overall, patients in each of the target countries found the AQoLS easy to understand and considered the content relevant to their experiences with alcohol.

Table 2. Demographic and AUD Characteristics of Patients Participating in the Cognitive Debriefing Interviews

Sample Characteristic	Japan (n = 8)	China (n = 10)	Korea (n = 12)
Age, years			
Median	56.0	40.0	53.0
Range	34-71	25-45	44-65
Sex, n			
Male	3	8	9
Female	5	2	3
DSM-IV diagnosis, n			
Dependence	8	5	9
Abuse	0	5	3
Current/remitted AUD, n			
Current	3	6	4
Remitted	5	4	8

Changes Made Following Lay Assessment and Patient Review

- A total of 16 items were modified across the three countries following the lay assessment groups and/or the cognitive debriefing interviews (Table 3).
- Most changes were needed to the simplified Chinese version, with 10 items requiring modification compared with 7 items in each of the Japanese and Korean versions.
- Reasons for changes to items included the following:

- Country-specific examples were added to help explain a target concept, or existing examples were changed to be more culturally appropriate.
- Individual words or phrases were added or modified to ensure the intended meaning was more accurately or clearly conveyed or to use a more natural expression.
- Alternative item wording was produced for further testing, or a choice was made between previously derived alternative formulations.

- The most problematic items, or those generating the greatest discussion to produce the most appropriate translation, were items 2, 12, 15, and 16, as well as items 3 and 32 in China.

Example 1: Item 2 in China (Figure 2)

- Difficulty was encountered in identifying a simplified Chinese translation for Item 2 that conveyed the meaning as defined in the Instrument Codebook.

Codebook Definitions for Item 2: It has been difficult for me to follow through on plans

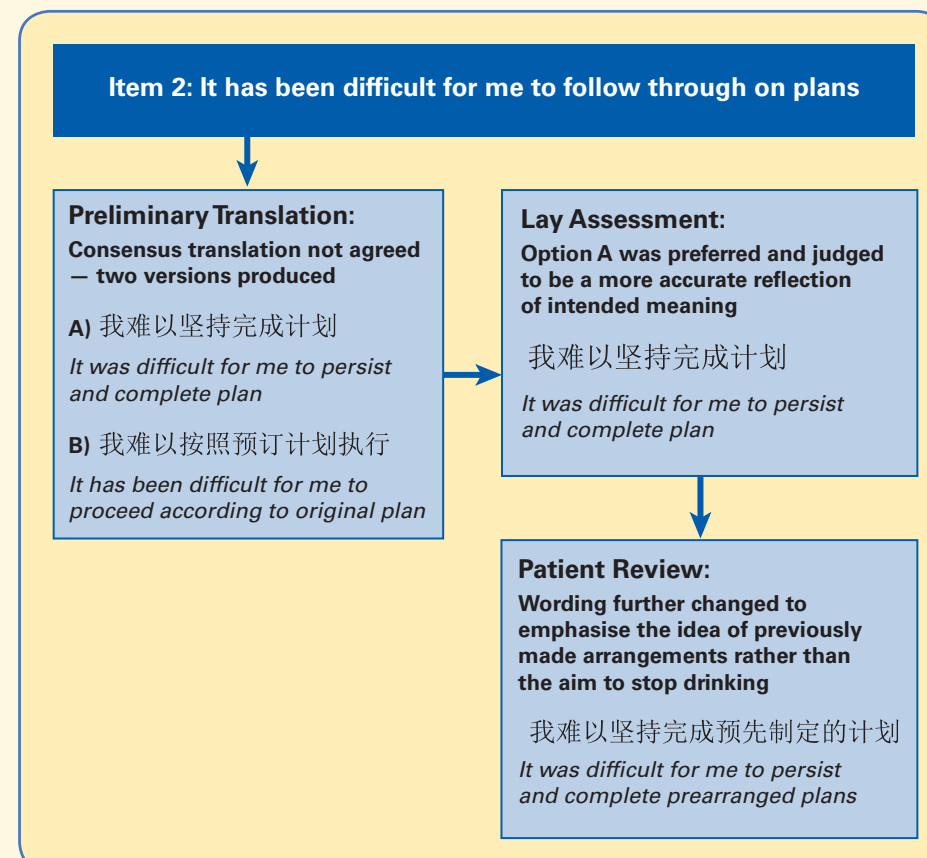
Over item meaning: The respondent has found it hard to take plans through to completion.

Follow through: to act and complete on something.

Plans: activities, events or commitments that are pre-arranged.

- The translators produced two alternative translations for consideration.
- The lay assessment panel selected the most appropriate version from a language and cultural perspective.
- Patient review resulted in further changes to put the item wording in the context of AUD.

Figure 2. Translation and Adaptation of AQoLS Item 2 in China



Example 2: Item 15 in Japan (Figure 3)

- Difficulty was encountered in identifying a Japanese translation for Item 15 that conveyed the meanings as defined in the Instrument Codebook and in selecting the most appropriate examples for the item in Japan.

Codebook Definitions for Item 15. I have struggled to keep on top of my everyday household affairs (e.g., dealing with mail, organising appointments)

Overall meaning: The respondent has found it difficult to maintain control of the everyday household business activities that need to be done.

Struggle: to do something with difficulty, and pushing the person's limits of effort. The item does not refer to whether or not the respondent actually completes the task but rather the degree of effort required to carry out the activity.

Keep on top of: to maintain control over.

Everyday household affairs: household management – the routine tasks that require action to deal with, such as opening and responding to letters, organizing personal and house insurance, notifying agencies of any changes in circumstances, organizing bill payments.

- The translators produced a single translation, which was further refined in the back-translation review to adequately express “maintaining control.”

- Both lay assessment groups recommended changes to the examples used to illustrate household affairs to be appropriate for Japan. The groups had different preferences for the wording used for “household affairs.” Three alternative translations were taken forward for patient review: one from each lay group and the preliminary translation.
- Most patients in the cognitive interviews preferred the alternative translation suggested by the second lay assessment group.

Figure 3. Translation and Adaptation of AQoLS Item 15 in Japan

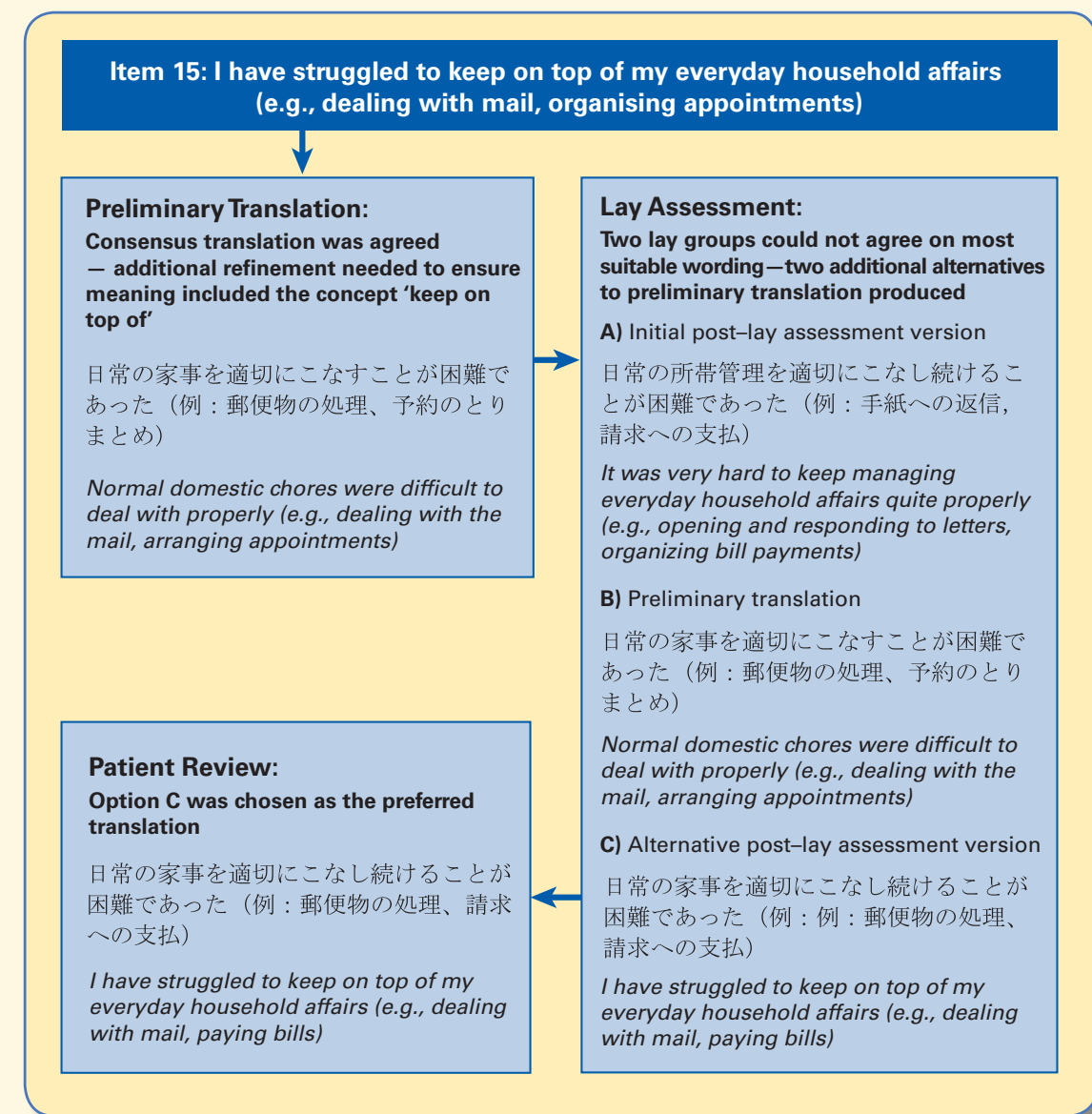


Table 3. AQoLS Items Modified During Lay Assessment or Patient Review

AQoLS Item	Lay Assessment	Patient Review
2: It has been difficult for me to follow through on plans	China	Japan, China
3: I have been restricted in the places I can go because of alcohol	China	China
4: I have struggled doing physical activities due to alcohol (e.g., DIY, walking, cycling)	China	Korea
5: It has been too much effort to do jobs around the house due to alcohol (e.g., cleaning, gardening, maintaining the house)	China	
7: I have cut myself off from other people	Korea	
8: I have neglected the people close to me	China, Korea	
9: Alcohol has damaged my close relationships		Japan, Korea
12: I have felt that people have no trust in me	China, Korea	China, Korea
15: I have struggled to keep on top of my everyday household affairs (e.g., dealing with mail, organising appointments)	Japan	Japan, China
16: Alcohol has had a negative effect on my housing situation	Japan, China	Korea
17: All my money has gone on alcohol		Japan
18: Alcohol has caused me financial difficulties		Korea
27: I have put myself in risky situations		Japan
29: Alcohol has controlled me		China
32: I have felt as though I have not been in control of myself	China	China
34: I have not been getting enough sleep	Japan	

CONCLUSIONS

- The AQoLS is the first measure of HRQOL to be developed specifically for use in AUD with extensive input from patients throughout the development process.
- The simultaneous development of the measure in the UK and France, together with the formal translatability assessment undertaken during item selection, was designed to maximise potential cultural applicability.
- The methodology employed to adapt the AQoLS for use in Japan, China, and Korea used accepted standards for the translation and linguistic validation of PRO instruments, with an additional lay assessment to allow the early identification of issues specifically related to cultural norms or the level of language used.
- The comprehensive cultural adaptation methodology helped to ensure that the new language versions were conceptually equivalent to the source instrument and appropriate to each target culture.
- The new adaptations of the AQoLS are appropriate instruments to assess HRQOL in AUD in Japan, China, and South Korea. It remains necessary to confirm the psychometric properties of these new language versions.

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