Cultural Adaptation of a Survey to Assess Medical Provider's Knowledge of and Attitudes Towards HIV/AIDS in Albania

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Introduction

Albania is a country in Southeastern Europe that has managed to circumvent the growing HIV/AIDS epidemic in Eastern Europe.[1-3] The number of Ministry of Health (MoH) reported cases of HIV in Albania remains under 400 in a country of 3.1 million.[4-6] However, recent studies suggest that the local prevalence may be 150-fold the current estimates, while risky behavioral practices are pervasive and the estimated emigration is 27 %.[7-9] Moreover, recent data indicate that barriers to attaining HIV-medical care in Albania are high and one of the most frequent patient-reported barriers was medical provider lack of knowledge of HIV/AIDS.[10]

Valid and reliable surveys on medical professional's knowledge of and attitudes towards HIV/AIDS in the developing world have been constructed.[11,12] Yet, implementation within a new country requires cultural adaptation of a previously validated measure. A number of different studies have proposed methods for cultural adaptation of self-reported measures.[13-15] The adaptation consists of a five-step process:

1) Translation of the instrument to the language of the population to be measured
2) Back translation of the instrument to check for accuracy
3) Review of the instrument by a committee of professionals who can critically evaluate the survey
4) Pre-testing the instrument
5) Determination of reliability.

Based on the lack of such an instrument in Albania and the perceived medical provider's lack of knowledge of HIV/AIDS, this study aimed to adapt an instrument that would assess these parameters in Albania.

Methods & Materials

Survey development

The instrument was developed from previous major studies in the developing world, including the Albanian Behavioral and Biological Surveillance Study Report, the Physician for Human Rights (PHR) Discriminatory Survey, and the Vietnamese Physician Knowledge of HIV/AIDS survey.[7,11,12] The cultural adaptation steps that were taken can be seen in Figure 1.

Focus groups

Focus groups were used for the initial pre-testing of the instrument. Three focus groups were conducted with UHCT-based physicians, UHCT-based nurses, or community-based physicians. Written informed consent was obtained prior to the initiation of the focus groups. The survey instrument was then completed by each of the participants. Focus groups explored initial perception of the survey, including material, wording, and length of the instrument, followed by an examination of individual questions. The groups were audiotaped for review at a later date.

Test – retest reliability testing

Twenty-six providers were given the revised survey twice within a one-week period. The responses from each of the participants were compared based on Cohen's kappa.

Sample size calculation for the test-retest reliability testing was determined based on the null hypothesis of kappa = 0.0. With a proportion of positive ratings ranging from 0.1 – 0.9 and an 80% power to detect statistical significance at kappa = 0.50, 25 participants were needed for the study.[16]

Data analysis

All data was analyzed with SAS 9.1.3. In determining the test-retest reliability of the measure, unweighted Cohen's kappa was calculated for each question in the knowledge and discrimination sections of the instrument – 43 questions in total.[17] The responses to the questions are categorical and thus no weighting was used—categorical responses that were used were "Yes/Agree," "No/Don't Agree," "Don't Know," and "No Answer." The data are presented with 95% confidence intervals and the standards for strength agreement of kappa: ≤0=poor, 0.01–0.2=slight, 0.21–0.4=fair, 0.41–0.6= moderate, 0.61–0.8=substantial, and 0.81–1=almost perfect.[18] Kappa values under 0.50 are not considered statistically significant at ($P \leq 0.05$).[17] Prevalence adjusted bias adjusted kappa (PABAK) is reported for questions that were influenced by prevalence or bias.[19-20]

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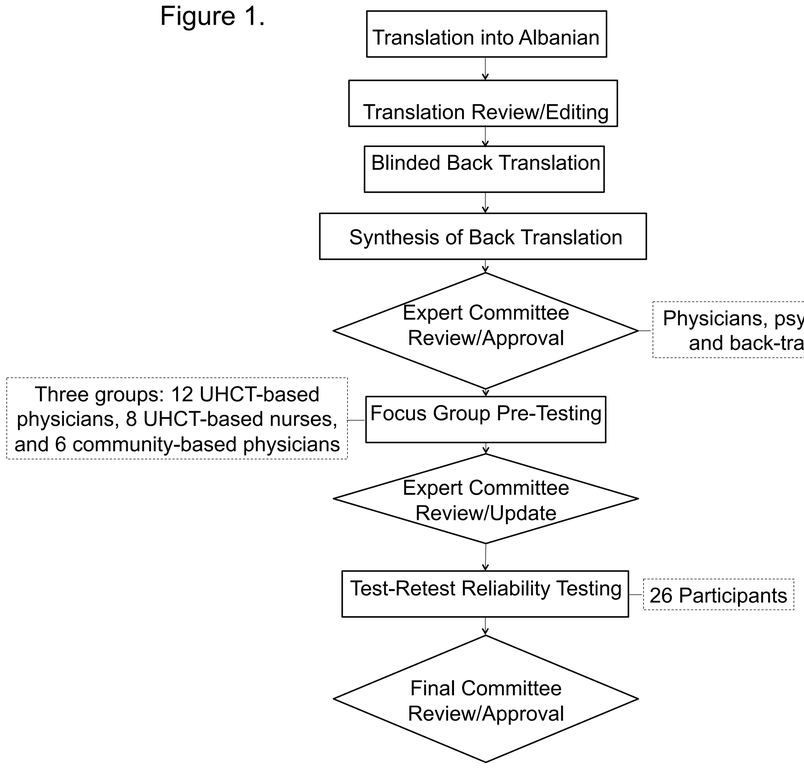
Results

Figure 1.



Focus Group Responses

"The survey was long and I was tired by the time I finished." – UHCT-based nurse

"Most questions were clear, but I had to read the questions more than once sometimes. If we paid close attention to the questions they were understandable." – UHCT-based physician

"The percentages were difficult for us to give because we do not have the statistical information about what is going on in Albania. Other centers do this." – Community-based physician

"The survey was not too long, it was sufficient/long enough. It is feasible to complete it in a reasonable amount of time." – UHCT-based physician

"The questionnaire should be extended to other fields in medicine." – UHCT-based physician

"It is very clear, I think, and medical students could understand it too." – Community-based physician

"It was a valuable survey and I think that this survey should be utilized more within the healthcare centers. Maybe more information about HIV would be beneficial for healthcare providers." – UHCT-based nurse

Table 1. Kappa and PABAK for questions from the test-retest reliability testing

Question	Unweighted Kappa	95 % CI	PABAK	Kappa Agreement
Knowledge of HIV/AIDS				
1. People can protect themselves from infection with HIV by having good nutrition	0.241	-0.099 – 0.581	0.384	Fair
2. People can protect themselves from infection with HIV by having one uninfected faithful sexual partner	0.527	0.168 – 0.887	0.615	Substantial
3. People can protect themselves from infection with HIV by not sharing a toilet seat with a person who has HIV	0.462	0.100 – 0.824	0.429	Moderate
4. People can protect themselves from infection with HIV by using a condom correctly every time they have sex	-0.074	-0.144 – -0.004	0.615	Substantial
5. People can protect themselves from infection with HIV by not sharing a meal with a person who had HIV	0.078	-0.206 – 0.362	0.231	Fair
Discrimination Against Patients with HIV/AIDS				
13. Have you observed others refusing to care for an HIV/AIDS patient?	0.616	0.221 – 1.000	0.769	Substantial
14. Have you refused to care for an HIV/AIDS patient?	0.490	0.471 – 0.509	0.923	Almost Perfect
15. Have you observed others refuse an HIV/AIDS patient admission to a hospital?	0.219	-0.103 – 0.541	0.462	Moderate
16. Have you refused an HIV/AIDS patient admission to a hospital?	0.220	-0.081 – 0.521	0.769	Substantial
17. Have you observed others give confidential information to a family member?	0.302	-0.010 – 0.614	0.385	Fair
Care and Treatment of Patients with HIV/AIDS				
23. A person's HIV status can be determined by his/her appearance	0.005	-0.189 – 0.198	0.385	Fair
24. Treating someone with HIV/AIDS is a waste of resources	-0.000	-0.000 – -0.000	0.923	Almost Perfect
25. A person with HIV/AIDS cannot be treated effectively in this facility	0.266	0.022 – 0.510	0.077	Fair
26. Medications to treat opportunistic infections may prolong an HIV positive patient's life	-0.000	-0.000 – -0.000	0.846	Almost Perfect
27. It is OK to test someone for HIV without their knowledge	0.299	0.004 – 0.595	0.231	Fair
28. Many of those who contract HIV/AIDS behave immorally and deserve to have the disease	-0.040	-0.102 – 0.022	0.692	Substantial
29. If someone has HIV/AIDS his employer/coworkers should be told even is she/he does not give permission	0.174	-0.062 – 0.409	-0.154	Slight
43. Relatives and sexual partners of HIV/AIDS patients should be notified for the patients HIV/AIDS status even without his/her consent	0.157	-0.146 – 0.460	0.077	Slight

Conclusions

Cultural adaptation was completed through development of a survey from a previously validated measure: translation of the survey into Albanian, blinded back translation, expert committee review of the draft instrument, focus group pre-testing with community- and University Hospital Centre of Tirana-based physicians and nurses, and test-retest reliability testing. Blinded back translation of the instrument supported the initial translation with slight changes to the idiomatic and conceptual equivalences. Focus group pre-testing generally supported the instrument, yet some experiential and idiomatic changes were implemented to the instrument. Based on unweighted kappa and/or prevalence adjusted bias adjusted kappa (PABAK), 20 of the 43 questions in the revised instrument were statistically significant, while 12 others did not cross zero on the 95% confidence interval for kappa, indicating their probable significance. Subsequently, a final instrument to assess medical provider's knowledge of and attitudes toward HIV/AIDS was developed for an Albanian population that can be expanded nationally within Albania or internationally within the Balkans; for example, in Kosovo or Former Yugoslavian Republic of Macedonia.