



LITHUANIAN PARTICIPATION IN COST ACTION BM1306: BETTER UNDERSTANDING THE HETEROGENEITY OF TINNITUS TO IMPROVE AND DEVELOP NEW TREATMENT (TINNET)

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COST Action BM1306: BETTER UNDERSTANDING THE HETEROGENEITY OF TINNITUS TO IMPROVE AND DEVELOP NEW TREATMENT (TINNET)

The application of Lithuanian group of authors was successfully evaluated by the Lithuanian Research Council and since **April 2014** the group has joint TINNET.

The COST Action intends a stepwise approach which involves identification of:

- (1) meaningful clinical and demographic characteristics for tinnitus subtyping;
 - (2) tinnitus related changes of brain activity in the different forms of tinnitus;
 - (3) intermediate genetic phenotypes for identification of genetic factors in the pathogenesis of tinnitus;
 - (4) predictors for response to various treatments.
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This approach requires a coordinated effort from basic scientists, technicians and clinicians of different disciplines working together in ongoing collaboration.



As for the first step in the activities of TINNET Lithuanian group worked on the translation of the Tinnitus Handicap Inventory (THI) to Lithuanian language, determining the validity of a Lithuanian translation of the Tinnitus Handicap Inventory (THI) by Newman et al. in order to make this self-report measure of perceived tinnitus handicap available both for clinical and research purposes in our country and to contribute to its cross-cultural validation.

Materials and methods

Two independant translations from original THI English version to Lithuanian language were performed – one translation by the profesional interpreter, another – by physician who know English very well and has translation experience. **Back translations** from Lithuanian to English language were performed by interpreters, who know Lithuanian very well but their native language is English. **The commitee** of 6 experts physicians compared the back translations to original version, the best translation version was chosen. It was finally elaborated by experts together with interpreters and Lithuanian language editor. The primary version of Lithuanian THI was prepared, **additional question „ do you understand the question?“** was added to each item and pilot study was performed in the group of 20 tinnitus patiens. All questions were understandable, no corrections were needed, expert group approaved the **final THI Lithuanian version**.

Materials and methods

The Lithuanian version of the THI was administered to 97 patients reporting chronic tinnitus as their primary complaint or secondary to hearing loss, aged between 18 and 83 years (mean 50,95 ±15,29 yrs), who attended the audiological and neurological tertiary centres of the University Hospital of Lithuanian University of Health Sciences, Kaunas and Vilnius University Republican Hospital, Vilnius.

No segregation of cases was made on audiometric results; patients suffering from vertigo and neurological diseases were excluded.

Distribution according sex – female 74.2 %, male 25,8 %.

Results

The THI Lithuanian version showed a robust internal consistency reliability (Cronbach's alpha = 0.94) that was slightly **higher** than the original version (Tinnitus Handicap Inventory-US; Cronbach's alpha = 0.93).



Results

The two subscales (Functional and Emotional) showed a good internal consistency reliability (Cronbach's alpha = **0.87** and **0.86**, respectively).

The Catastrophic subscale showed lower, but still acceptable internal consistency reliability (Cronbach's alpha = **0.703**) as it is too short in length (5 items).

A confirmatory factor analysis failed to demonstrate that the 3 subscales of the THI-I correspond to 3 different factors.



DISCUSSION

Our results obtained are similar to the original version and also to other language validations:

THI-LT	0,94
THI-US	0,93
THI-Danish	0,93
THI-Spanish	0,90
THI-Korean	0,79-0,93
THI-Portuguese	0,94
THI-German	0,93
Chinese (Cantonese)	0,72-0,94



Conclusion

Lithuanian THI may be a reliable and valid measure of general tinnitus related distress that can be used in a clinical setting to quantify the impact of tinnitus on daily living. It will be used for TINNET activities.