Adaptation and Validation of Voice Handicap Index in Telugu Language

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Abstract : Background: Voice is multidimensional which convey emotion, feelings, and communication. Voice disorders have an adverse effect on the physical, emotional and functional domains of an individual. Self-rating by clients about their voice problem helps the clinicians to plan intervention strategies. Voice handicap index is one such self-rating scale contains 30 questions that quantify the functional, physical and emotional impacts of a voice disorder on a patient's quality of life. Each subsection has 10 questions. Though adapted and validated versions of VHI are available in other Indian languages but not in Telugu, which is a Dravidian language native to India. It is mainly spoken in Andhra Pradesh and neighbouring states in southern India. Objectives: To adapt and validate the English version of Voice Handicap Index (VHI) into Telugu language and evaluate its internal consistency and clinical validate in Telugu speaking population. Materials: The study carried out in three stages. First stage was a forward translation of English version of VHI, was given to ten experts, who were well proficient in writing and reading Telugu and five speech-language pathologists to translate into Telugu. Second Stage was backward translation where translated version of Telugu was given to a different group of ten experts (who were well proficient in writing and reading Telugu) and five speech-language pathologists who were native Telugu speakers and had good proficiency in Telugu and English. The third stage was an administration of translated version on Telugu to the targeted population. Totally 40 clinical subjects and 40 normal controls served as participants, and each group had 26 males and 14 females' age range of 20 to 60 years. Clinical group comprised of individuals with laryngectomee with the Tracheoesophageal puncture (n=18), laryngitis (n=11), vocal nodules (n=7) and vocal fold palsy (n=4). Participants were asked to mark of their each experience on a 5 point equal appearing scale (0=never, 1=almost never, 2=sometimes, 3=almost always, 4=always) with a maximum total score of 120. Results: Statistical analysis was made by using SPSS software (22.0.0 Version). Mean, standard deviation and percentage (%) were calculated all the participants for both the groups. Internal consistency of VHI in Telugu was found to be excellent with the consistency scores for all the domains such as physical, emotional and functional are 0.742, 0.934and 0.938. The validity of scores showed a significant difference between clinical population and control group for domains like physical, emotional and functional and total scores. P value found to be less than $0.001(< 0.001)$. Negative correlation found in age and gender among self-domains such as physical, emotional and functional total scores in dysphonic and control group. Conclusion: The present study indicated that VHI in Telugu is able to discriminate participants having voice pathology from normal populations, which make this as a valid tool to collect information about their voice from the participants.

Keywords : adaptation, Telugu Version, translation, Voice Handicap Index (VHI)

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