

ROMANIAN
NEUROSURGERY

Vol. XXXV | No. 4 December 2021

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ABSTRACT

Objective: To translate and culturally adapt the Telugu version of Quality-of-Life tool among Spinal Cord Injury patients.

Method: It's a prospective cross-sectional study conducted at a tertiary neuro centre care hospital. The English version was translated into Telugu by two expert medical professionals and cross-checked by three experts in Telugu vocabulary. Nursing students who had good proficiency in reading and writing in English and Telugu languages were chosen for checking tool reliability. Initially English language was administered on the satisfaction domain followed by the importance domain one month apart. After two months Telugu version was administered in the same way as the English version. The reliability analysis was done.

Results: The tool was administered to 50 nursing students. The Cronbach's alpha for the satisfaction domain was 0.97 and the importance domain was 0.91, indicating excellent reliability.

Conclusion: The Telugu version of the QOL tool had excellent reliability. Therefore it can be administered in the Telugu language for evaluating the quality of life of people with spinal cord injury.

INTRODUCTION

Spinal cord injury (SCI) is a major public health issue. In India, due to rapid advancement in motorization and industrialization the SCI are

Keywords
spinal cord injury,
quality of life,
Telugu language,
satisfaction



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ISSN online 2344-4959
© Romanian Society of
Neurosurgery



First published
October 2021 by
London Academic Publishing
www.lapub.co.uk

increasing every year. SCI results in motor and sensory impairment which may be temporary for short time or permanent throughout lifetime depending on the severity of injury and individual factors.^{1, 2} Majority of SCI survivors will have permanent non-repairable damage to spinal cord thus they will suffer from secondary complications which will have major effect on their daily activities. Quality of life (QOL) is an important parameter of disabled patient, especially among SCIs. The parameter in QOL includes subjective and objective aspects of injured patient.³ Therefore; evaluating QOL among SCI patients is a challenging issue. The tool has been widely adapted and translated in major languages across the world. As per the census of 2001, the Telugu is a first language of over 74 million people in India. At present, Telugu is a third major language that is spoken in the country. Hence it is very important to have QLI in Telugu language. Thus, there is lack of reliable studies addressing QLI tool in Telugu language. The objective of the present study is to translate and culturally adapt the Ferrans and Powers Quality of Life (QLI), Spinal Cord Injury-III in Telugu language.

METHODS

It's a prospective cross-sectional study conducted at the department of Neurosurgery, Narayana Medical College, Nellore. Permission through email was sought from Farren to translate and validate this tool in Telugu language. The study was approved by Institute Ethical Committee. The tool was translated by two medical professionals who were proficient in reading, writing, and speaking of Telugu and English languages. All 37 items of both parts of health quality; satisfaction and importance were translated^{4,5}. The translated items were read by three independent professionals. Independent readers have ensured that the translation in Telugu is accurate and flawless by giving their suggestions. The final draft of Telugu version was finalized after incorporation of suggestions and corrections of readers.

Fifty nursing students, well proficient in English and Telugu languages were chosen for the study. The informed written consent was obtained from all the participant. Participants did not receive any incentives for their participation in the study. Two interviewers (not know to each other) administered the tool in English language on all the participants. All

standard procedures for administering the tool were followed. The questions of satisfaction and importance domains were administered with one month apart. The Telugu translated questionnaire was administered after 2 months of administering English language. A gap of one month was maintained between administration of satisfaction and importance domain.

STATISTICAL ANALYSIS

The data was analyzed with the help of Statistical Package for the Social Science, version 18. The Cronbach's alpha and correlation were calculated for difference between interviewee responses on English and Telugu questionnaire.

RESULTS

The Cronbach's alpha coefficient was calculated for QLI in Telugu language among Telugu speaking population. The domains of satisfaction and importance had a Cronbach's alpha coefficient of ≥ 0.9 , indicating excellent reliability. Table 1 reveals result of the reliability analysis.

Ferrans and Powers Quality of Life	No. of items	alpha
Satisfaction domain	37	0.97
Importance domain	37	0.91

Table 1. Reliability table for the Quality-of-Life tool

DISCUSSION

There are many tools available but none are without limitations. The most accepted and commonly used tools are from developed countries and have been adapted in developing countries in their native languages. Among such tools the Ferrans and Powers Quality of Life (QLI) is very reliable and a valid tool that has been found very comprehensive and applicable in assessing the quality of life in SCI patients^{3,6}. The QLI Spinal Cord Injury - Version III, is a specific version which was specifically designed for spinal cord injury⁷.

The study result reports that satisfaction and importance domains of QLI in Telugu language had excellent internal consistency as reflected by Cronbach's alpha value ($\alpha \geq 0.9$). The intercorrelation between satisfaction and importance domains of QLI in English and translated Telugu language is very high. The result of all the Telugu translated items of tool are all most same as English language, because intercorrelation between the translation and English

language is excellent. Hence both the satisfaction and importance domains of QLI in Telugu language have excellent reliability.

A study from Brazil translated QLI for SCI into Portuguese cultural vocabulary and reported that the kappa coefficient was statistically stable of all the items of the tool. 8 A study translated QLI in Norwegian version and reported excellent reliability with alpha value of 0.93. 9 Various studies have reported internal consistency reliability ranging from 0.73 to 0.93 for health and functioning domains of QLI. 10, 11 In order to adapt QLI for SCI in the Telugu speaking population their cultured vocabulary was used. Exact translation and substitution of English sentence with same meaning in Telugu was done by expert person. The present study results report that Telugu translated QLI have excellent reliability and can be used among Telugu population.

CONCLUSION

The Telugu translated Quality of Life Index Spinal Cord Injury - Version III showed that the tool is suitable from satisfaction and importance domain point of view and provides way for easy application to evaluate the QOL among SCI people.

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