



Translation and validation of the Rhinosinusitis Disability Index for use in Nigeria

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Abstract

The Rhinosinusitis Disability Index (RSDI) is a validated and reliable measure of severity of chronic rhinosinusitis. The objective of this study was to translate and validate the instrument for use in Nigeria. This is a methodological study. 71 patients with chronic rhinosinusitis attending two Otolaryngology clinics in Lagos, Nigeria. Using standardized methods and trained translators, the RSDI was translated to vernacular (Yoruba language) and back-translated to culturally appropriate English. Data analysis comprised of assessment of the item quality, content validity and internal consistency of the back-translated Rhinosinusitis Disability Index (bRSDI), and correlation to the original RSDI. Content validity (floor and ceiling effects) showed 0% floor and ceiling effects for the total scores, 0% ceiling effects for all domains and floor effect for physical domain, and 9.9 and 8.5% floor effects for functional and emotional domains, respectively. The mean item-own correlation for physical domain was 0.54 ± 0.08 , 0.72 ± 0.08 for functional domain and 0.74 ± 0.07 for emotional domain. All domain item-own correlations were higher than item-other domain correlations. The total Cronbach's alpha was 0.936 and was higher than 0.70 for all the domains representing good internal consistency. Pearson correlation analysis showed strong correlation of RSDI to bRSDI (total score 0.881; $p = 0.000$, and domain subscores—physical: 0.788; $p = 0.000$, functional: 0.830; $p = 0.000$, and

emotional: 0.888; $p = 0.000$). The back-translated Rhinosinusitis Disability Index shows good face and content validity with good internal consistency while correlating linearly and significantly with the original Rhinosinusitis Disability Index and is recommended for use in Nigeria.

Keywords

Rhinosinusitis Disability Index Back-translated Rhinosinusitis Disability Index
Chronic rhinosinusitis Quality of life Validity Internal consistency

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Notes

Compliance with ethical standards

Funding

This study was not funded by any grant.

Conflict of interest

All authors declare that they have no conflict of interest.

Ethical approval

All procedures performed in studies involving human participants were in accordance with ethical standards of the institution and or national research committee and with 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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