Translation, Cross-Cultural Adaptation and Psychometric Evaluation of the Yoruba Version of Musculoskeletal Health Questionnaire

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Introduction

- Musculoskeletal disorders (MSDs) are the largest causes of disability globally, with low back pain, being the most common type, affecting approximately 577 million people
- The Musculoskeletal Health Questionnaire (MSK-HQ) is a short, targeted instrument that effectively captures the complex treatment goals essential for managing MSDs
- However, it remains unavailable in any Nigerian language

Purpose

•. This study aimed to translate and culturally adapt the MSK-HQ into Yoruba language, and to assess its psychometric properties

Methods

- The first stage of this study involved translating the English MSK-HQ into Yoruba using the Guillemin criteria
- A correlational study design was employed for psychometric testing of the translated version among 77 respondents with MSDs, while 40 patients participated in the reliability testing phase
- The SF-12 and visual analogue scale (VAS) were utilised to assess the convergent and divergent validity of the tool. Data were analysed using descriptive and inferential statistics.
- The alpha level was set at p < 0.05

The Musculoskeletal Health Questionnaire (MSK-HQ)

Questionnaire for joint, back, neck and muscle symptoms

his questionnaire is about your joint, back, neck, bone and muscle symptoms such as aches, pains and/or tiffness.

for each question **tick** (\checkmark) one box to indicate which statement best describes you over the last 2 weeks.

1. Pain/stiffness during the day How severe was your usual joint or muscle pain and / or stiffness overall during the day in the last 2 weeks?	Not at all	Slightly	Moderately □ ₂	Fairly severe	Very severe
3. Walking How much have your symptoms interfered with your ability to walk in the last 2 weeks?	Not at all	Slightly	Moderately	Severely	Unable to walk

Results

- The mean age of the participants was 32.7 ± 12.4 years
- The Yoruba version of the MSK-HQ (MSKHQ-Y) demonstrated acceptable concurrent validity (r=0.968; p=0.001), but mixed construct validity for convergent (r=0.493; p=0.001; r=-0.472; p=0.001; r=0.667; p=0.001; r=0.625; p=0.001; r=0.618; p=0.001; r=-0.303; p=0.007; r=-0.308; p=0.006; r=0.015; p=0.898; r=0.703; p=0.001) and negative divergent validity (r=-0.598; p=0.001)
- In terms of the convergent validity, the physical health domain (r=0.703; p=0.001) and role limitations due to physical problems (r=-0.472; p=0.001) showed the highest and lowest scores, respectively
- The test-retest reliability and internal consistency (Cronbach's alpha) of the MSKHQ-Y were r=0.989 and p=0.001, with r=1.000 for item-by-item variables
- Model modification included eight correlation residuals ranging from 0.08 to 0.40. The factor loadings of the 2-factor model were excellent, and both models exhibited excellent composite reliability

Conclusion

• The MSKHQ-Y is a robust tool with strong psychometric properties for assessing musculoskeletal health in Yoruba-speaking populations, making it highly valuable for both clinical and research applications

References

- Kongsted A, Kent P, Quicke JG, Skou ST, Hill JC. Risk-stratifed and stepped models of care for back pain and osteoarthritis: are we heading towards a common model? Pain Rep. 2020;5:e843
- GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020;396:1204–22

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