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Hindi Translation,Cross-cultural Adaptation and Psychometric Properties of the Dynamic Gait Index: A Study Protocol

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Introduction: Stroke remains a significant global health challenge, contributing to high rates of mortality and long-term disability. The Dynamic Gait Index (DGI) is an assessment tool is used to evaluate gait stability and predict the risk of all among older adults and the individual shaving balance issue. The DGI comprises eight functional tasks that assess the aspects of gait and balance during dynamic movements. However, the absence of a validated Hindi version hinders its utility among the over 609 million Hindi speakers worldwide.

Need of the study: Addressing this gap is essential to expanding access to remote stroke rehabilitation for Hindi-speaking populations.

Aim: This study seeks to translate the DGI into Hindi, validate the translated version, and examine its test-retest reliability in stroke patients who primarily speak Hindi.

Materials and Methods: Permission from the original authors of the scale will be obtained prior to initiating a structured translation process. The scale will be translated into Hindi independently by bilingual professionals with expertise in healthcare and linguistics. The translations will then be harmonised into a unified version and back-translated into English to verify accuracy and equivalence. Content validation will involve an expert panel using the Delphi method to calculate Item-level Content Validity Index and Scale-level Content Validity Index Average. The pre final version will be tested on a small group of Hindi-speaking stroke patients to ensure its comprehensibility and cultural relevance. Test-retest reliability will be measured by administering the scale twice at a fixed interval, with consistency assessed through Intra class Correlation Coefficients and Bland-Altman plots.

Keywards: Gait assesment, Reliability, Translation.