

Development, Translation and Validation of Enhanced Asian Rome III Questionnaires for Diagnosis of Functional Bowel Diseases in Major Asian Languages: A Rome Foundation-Asian Neurogastroenterology and Motility Association Working Team Report

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ABSTRACT

Aims: The development-processes by regional socio-cultural adaptation of an Enhanced Asian Rome III questionnaire (EAR3Q), a cultural adaptation of the Rome III diagnostic questionnaire (R3DQ), and its translation-validation in Asian languages are presented. As English is not the first language for most Asians, translation-validation of EAR3Q is essential. Hence, we aimed to culturally adapt the R3DQ to develop EAR3Q and linguistically validate it to show that the EAR3Q is able to allocate diagnosis according to Rome III criteria.

Methods: After EAR3Q was developed by Asian experts by consensus, it was translated into Chinese, Hindi-Telugu, Indonesian, Korean, and Thai, following Rome Foundation guidelines; these were then validated on native subjects (healthy [n = 60], and patients with irritable bowel syndrome [n = 59], functional dyspepsia [n = 53] and functional constipation [n = 61]) diagnosed by clinicians using Rome III criteria, negative alarm features and investigations.

Results: Experts noted words for constipation, bloating, fullness and heartburn, posed difficulty. The English back-translated questionnaires demonstrated concordance with the original EAR3Q. Sensitivity and specificity of the questionnaires were high enough to diagnose respective functional gastrointestinal disorders (gold standard: clinical diagnoses) in most except Korean and Indonesian languages. Questionnaires often uncovered overlapping functional gastrointestinal disorders. Test-retest agreement (kappa) values of the translated questionnaires were high (0.700-1.000) except in Korean (0.300-0.500) and Indonesian (0.100-0.400) languages at the initial and 2-week follow-up visit.

Conclusions: Though Chinese, Hindi and Telugu translations were performed well, Korean and Indonesian versions were not. Questionnaires often uncovered overlapping FGIDs, which were quite common.

Key Words: Asia; Gastrointestinal diseases; Rome III criteria; Translations; Validation

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