Validation of the Malay version of Berlin questionnaire to identify Malaysian patients for obstructive sleep apnea
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Yunus A, Seet W, Mohamad Adam B, Haniff J

Authors:

Mohamad Adam Bujang, Bsc, MBA
(Consulting author)
Biostatistics Unit, Clinical Research Center, 1st Floor MMA House,124 Jalan Pahang, 53000 Kuala Lumpur, Malaysia Tel: +60340443060 Fax: +60340443080 Email: adam@crc.gov.my

Ashari Yunus, MD, MMED Int Med Institute of Respiratory Medicine, Ministry of Health, Kuala Lumpur, Malaysia Email: ashdr64@yahoo.com.au

Seet Wymen, MBBS, MPH Clinical Epidemiology Unit, Clinical Research Centre, Kuala Lumpur, Malaysia Email: wymenseet@gmail.com

Jamaiyah Haniff, MD, MPH, MSc Clinical Epidemiology Unit, Clinical Research Centre, Kuala Lumpur, Malaysia Email: jamaiyah@crc.gov.my

Abstract:

Objective: To validate the Malay version of Berlin Questionnaire (BQ) as a tool to screen for patients at risk of obstructive sleep apnea (OSA) in primary care

Background: Most patients with OSA are unrecognised and untreated. Thus, the BQ has been used as a tool to screen for patients at risk for OSA. However, this tool has not been validated in Malay version.

Materials and Methods: A parallel back-to-back translation method was applied to produce the Malay version (Berlin-M). The Malay version was administered to 150 patients in a tertiary respiratory medical centre. Concurrent validity of the Berlin-M was determined using the Apnea Hypopnea Index (AHI) as the gold standard measure. The test-retest reliability and internal consistency of the Berlin-M were determined.

Results: Most patients were males (64.0%) and majority of them were Malays (63.3%). Based on the sleep study test, 121 (84.0%) were classified as high risk while 23 (16.0%) as low risk using the Apnea Hypopnea Index (AHI) ≥5 as the cutoff point. The test–retest reliability Kappa value showed a good range between 0.864 – 1.000. The Cronbach’s alpha of BQ was 0.750 in category 1 and 0.888 in category 2. The sensitivity and specificity were 92% and 17% respectively.

Conclusion: The BQ showed high sensitivity (92%) but low specificity (17%). Therefore, though the Berlin-M is useful as a screening tool, it is not a confirmatory diagnostic tool.