

# Translation and validation of Visual Analogue Scale-Fatigue (VAS-F) to evaluate the severity of fatigue in healthy individuals

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## ABSTRACT

**Introduction:** Visual Analogue Scale-Fatigue (VAS-F) was established to evaluate the degree of fatigue severity. Respondents mark "X" along a visual analogue scale between two extremes for 18 items. Preliminary psychometric evaluations revealed high internal reliability ranging from 0.94 to 0.96. This study was initiated to validate a translated Malay language VAS-F among healthy individuals following an 18-24-hour wakefulness period. **Methods:** The English VAS-F underwent forward and backward translations by four experts. The translated Malay language questionnaire (VAS-F-MAS) was pilot-tested on 15 subjects and revised accordingly. Validation of the revised questionnaire was carried out on 30 healthy individuals following an 18-24-hour wakefulness period. Cronbach alpha value of at least 0.70 suggests adequate internal consistency and reliability. The criterion validity test for VAS-F-MAS was done by completing it before and after at least 18 hours of wakefulness. **Results:** Results from the pilot phase demonstrated that the translation was fully understood by the respondents. For the fieldwork phase, the mean (SD) age of respondents was 29.1 (5.3) years with majority female (66.7%), and Malay (63.3%). The Cronbach's alpha of the translated questionnaire showed excellent reliability with Cronbach Alpha 0.947 and 0.919 for the pre-test and post-test respectively. The baseline mean (SD) score for VAS-F-MAS was 8.9 (11.9) and increased to 79.8 (13.6) following an 18-24 hours wakefulness period, with  $p < 0.001$ . **Conclusion:** The translated VAS-F-MAS scale is reliable and valid to measure the degree of fatigue severity following an 18-24-hour wakefulness period.