Braz J Phys Ther 29 (2025) 101175

Contents lists available at ScienceDirect

Brazilian Journal of Physical Therapy

journal homepage: www.elsevier.com/locate/bjpt

Letter to the Editor

Reply to letter to editor for article: "Development, reliability, and validity of the mobility assessment scale in hospitalized patients (HMob)."

To the editor,

We appreciate the comments made in the letter to the editor by Chavarro-Ortiz et al.,[1] which provide relevant insights regarding the methodological aspects of the article describing the development of the Hospital Mobility Assessment Scale (HMob).

Regarding content validity, the categories included in the HMob were based on domains related to the construct of mobility as defined by the International Classification of Functioning, Disability, and Health (ICF) of the World Health Organization (WHO) and prior mobility scales.[2,3] The primary objective was to evaluate items related to transfer activities both in bed and out of bed, as well as locomotion, as these are the main tasks emphasized in the hospital setting.

In the first phase of scale development, only two domains were included: mobility in bed and spatial mobility, with a total of 16 tasks. These tasks were assessed by four experts in hospital-based physical therapy, who responded to eight questions about HMob and provided feedback on the scale's items. These questions aimed to assess the necessity and relevance of the included items from the perspective of the experts. Based on their feedback, the final version of the scale was refined to include three domains (in-bed mobility, bedside mobility, and spatial mobility) and a total of 15 items, as described in the article.[4] The calculation of the content validity ratio (CVR) and content validity index (CVI)[5,6] for the importance and necessity of the HMob items yielded a value of 1.

Regarding the concurrent validity of HMob compared to the FSS-ICU and the motor domain of the FIM, we agree with Ortiz et al.[1] that there is no specific, gold-standard scale for measuring mobility in the hospital setting. However, the Functional Status Score for the Intensive Care Unit (FSS-ICU) is the most closely aligned scale for assessing transfer and ambulation domains, and for this reason, it was used as a comparator in the evaluation of concurrent validity. The motor domain of the Functional Independence Measure (FIM) was also utilized to measure this clinimetric property, as it evaluates relevant items, including basic daily activities. It is important to emphasize that the discussion section of the article highlights the advantages of the HMob scale and its included items compared to the FSS and the motor domain of the FIM. The limitations of these widely used instruments in clinical settings served as a motivation for developing HMob.

Chavarro-Ortiz et al.[1] raised concerns regarding the limitations of using Cronbach's alpha to assess internal consistency. In this regard, we highlight that McDonald's omega was also calculated, with a value of 0.963, suggesting strong reliability of the included items.

Finally, regarding the application of HMob to critically ill patients, we agree that caution is required when assessing certain items in this population. However, we emphasize that safety criteria should guide the selection of items to be measured with HMob. Moreover, the division of HMob into three blocks enhances safety, as professionals have the option to evaluate only one or two blocks. Additionally, the scale allows for the inclusion of clinical restrictions that justify the omission of specific items.

In conclusion, the study by Resende et al.[4] represents the first article on the development and clinimetric testing of HMob. Undoubtedly, further studies are necessary to evaluate its concurrent validity with other instruments, as well as its responsiveness and applicability in various clinical settings and contexts.

Declaration of competing interest

The authors declare that they have no conflict of interest.

References

1. Letter to the editor about the article "Development, reliability, and validity of the mobility assessment scale in hospitalized patients (HMob)".
2. World Health Organization International Classification of Functioning, Disability, and Health (ICF). 2001. https://www.who.int/classifications/international-classification-of-functioning-disability-and-health.
3. Alves GAA, Martinez BP, Lunardi AC. Assessment of the measurement properties of the Brazilian versions of the Functional Sta- tus Score for the ICU and the Functional Independence Measure in critically ill patients in the intensive care unit. *Rev Bras Ter Intens.* 2019;31(4), 521528.
4. Ramos IR, Santos JS, Pires dos Santos MC, da Silva DF, Alves IGN, Neto MG, et al. Development, reliability, and validity of the mobility assessment scale in hospitalized patients (HMob). *Braz J Phys Ther.* 2024 Mar;28(2), 101047.
5. Madadizadeh F, Bahariniya S. Tutorial on how to calculating content validity o2 scales in medical research. *Perioperat Care and Operat Room Manag.* 2023;31:10031.
6. Terwee CB, Prinsen CA, Chiarotto A, et al. COSMIN methodology of evaluating the content validity o2 patient-reported outcome measures: a Delphi study. *Qual Li&e Res.* 2018;27(5):1159–1170.

Comment on the paper: *Ramos IR, Santos JS, Pires dos Santos MC, da Silva DF, Alves IGN, Neto MG,* et al. *Development, reliability, and validity of the mobility assessment scale in hospitalized patients (HMob). Braz J Phys Ther. 2024 Mar;28(2):101047.*

https://doi.org/10.1016/j.bjpt.2025.101175
Received 21 November 2024; Accepted 14 January 2025
Available online 4 February 2025
1413-3555/© 2025 Published by Elsevier España, S.L.U. on behalf of Associação Brasileira de Pesquisa e Pós-Graduação em Fisioterapia.

Isis Resende Ramos[b], Iura Gonzalez Nogueira Alves[a], Mansueto Gomes Neto[a,b], Bruno Prata Martinez[a,b,*]

[a] *Federal University of Bahia(UFBA), Salvador, Brazil*

[b] *Postgraduate Program in Medicine and Health, Federal University of Bahia – UFBA, Salvador, Bahia, Brazil*

[*] Corresponding author at: Federal University of Bahia (UFBA). Postgraduate Program in Medicine and Health. Rua Padre Feijó, n° 312 (Casas 47 e 49), Bairro Canela CEP 40. 110-170 Salvador - Bahia – Brazil.

E-mail addresses: isisresende@hotmail.com (I.R. Ramos), gonzalez.alvesin@gmail.com (I.G.N. Alves), netofisio@gmail.com (M.G. Neto), brunopmartinez@hotmail.com (B.P. Martinez).