Letter to the Editor

Clarifying Scientific Priority and Existing Normative Values for Single-Leg Bridge Endurance

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This correspondence addresses claims of novelty in the recently published article by Worst and Henderson (2026) regarding normative values for the single-leg bridge (SLB) endurance test. While the authors contribute valuable insights into clinician assessment accuracy, their assertion that normative SLB values for healthy young adults are currently "lacking" or "first" reported in 2026 overlooks foundational data published in 2021 (Lehecka et al.). This letter clarifies the methodological and demographic confluence between the Gluteal Endurance Measure-B (GEM-B) and the SLB test, noting that normative values established via electromyographic median frequency shifts and visual estimation have been available since 2021. Correcting the scientific record ensures accurate attribution and maintains the evidentiary lineage required for evidence-based practice and future meta-analyses.

LETTER TO THE EDITOR: CLARIFYING SCIENTIFIC PRIORITY AND EXISTING NORMATIVE VALUES FOR SINGLE-LEG BRIDGE ENDURANCE

We read with great interest the article by Worst and Henderson (2026), "Establishing Normative Values and Clinician Assessment Accuracy for the Single Leg Bridge Endurance Test."[1] We applaud the authors for their focus on gluteal endurance—a construct that remains critically under-assessed and under-treated in musculoskeletal rehabilitation despite its foundational role in lumbopelvic and lower extremity health. Their investigation into clinician assessment accuracy (Aim 2) is a valuable and novel addition to the literature.

However, we believe it is necessary to provide a correction to the scientific record regarding the study's claims of priority for normative data (Aim 1). On many separate occasions—spanning the Abstract, Introduction, Discussion, and Conclusion—the authors explicitly assert that their study "provides the first normative SLB endurance values for healthy young adults" or that such values are currently "lacking." These assertions overlook foundational data published in this same journal five years prior. In 2021, Lehecka et al. established the first normative endurance values for this specific task—termed "GEM-B" (bridging endurance)—within a healthy university population (N=66).[2]

It is noteworthy that Worst and Henderson cite our 2017 study[3] (their Reference 13) regarding bridge positions to support their introductory physiological context. The protocol used for GEM-B in the 2021 study[2] was directly based on the 135-degree knee flexion position validated in that 2017 work. While the authors were clearly aware of the 2017 methodological foundation, it appears the 2021 study establishing the normative values they sought was missed during the literature review process.

Furthermore, any claim of population novelty is undermined by the cohort's descriptive statistics. While the 2026 study recruited a broader age range (18–60 years), their sample's mean age of 20.3 years is nearly identical to our 2021 cohort (range: 18–35 years; mean age: 22.78 ± 2.47 years). The results by Lehecka et al. predated the 2026 reported values (65.2 ± 32.7 s) with a mean hold time of 81.03 ± 24.79 seconds. Crucially, while both studies utilized clinician visual estimation to determine task failure, the 2021 study integrated electromyographic median frequency shifts to validate that these visual endpoints corresponded with objective gluteal fatigue.

Accurate attribution is essential to ensure the literature remains a reliable repository of primary data. While the 2026 study contributes meaningfully to assessment accuracy, the record must be corrected to reflect that normative values and physiological validation for this measure have been established in the literature since 2021.

RESPECTFULLY,

BJ Lehecka, DPT, PhD

RESPONSE TO LETTER TO THE EDITOR

We thank Dr. Lehecka for his thoughtful letter and for his continued contributions to the literature examining gluteal endurance assessment. We appreciate the opportunity to clarify aspects of our work and to address the points raised.

First, we sincerely apologize for not citing the 2021 Lehecka et al. article during our literature review. This omission was unintentional and appears to be related to differences in terminology. The Lehecka et al. study described the task as the *Gluteal Endurance Measure–B (GEM-B)*, whereas our manuscript used the clinically common term *single-leg bridge endurance test*. Because our search strategy emphasized clinically applied test names commonly used by practicing physical therapists, this difference in nomenclature regrettably led to the GEM-B article being overlooked. We agree that the 2021 publication represents an important contribution to the literature and acknowledge its role in establishing endurance values for this task.

Our intent was not to diminish or disregard prior work, but rather to address a gap as we understood it through a clinical lens. Specifically, how clinicians visually determine failure during a commonly used endurance task and how accurate those determinations are. While our wording regarding novelty could have been more precise, our primary aim was to extend the literature by examining clinician assessment accuracy and by framing endurance testing in a manner that aligns with routine outpatient physical therapy practice.

We would also like to respectfully clarify the distinction between physiological validation and clinical applicability. We agree that the use of electromyographic median frequency shifts, as employed by Lehecka et al., provides valuable insight into muscle fatigue and strengthens construct validity. However, EMG-based determination of task failure is not readily accessible to most practicing physical therapists in outpatient settings. In contrast, our study intentionally focused on a pragmatic, low-cost approach that mirrors real-world practice, where clinicians rely on visual criteria and simple timing methods. Increasingly, these assessments are supported by readily available tools such as smartphone-based applications, which enhance feasibility without requiring specialized equipment.

Taken together, we view these approaches as complementary rather than conflicting. The work by Lehecka et al. provides important physiological context, while our study sought to translate endurance assessment into a format that is feasible, scalable, and immediately applicable across a wide range of clinical environments.

We appreciate Dr. Lehecka's engagement and the opportunity to clarify the scientific record. Accurate attribution and continued dialogue strengthen the field, and we welcome future work that further bridges laboratory validation with clinical implementation.

RESPECTFULLY,

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Nancy Henderson, PT, DPT, PhD, OCS

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