

Quality of Popular Online Resources About Vestibular Migraine

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Background

- At least 35% of U.S. adults have searched the Internet to help diagnose a suspected medical condition¹
- Searches related to headache and migraine have increased significantly over the past decade²
- Vestibular migraine (VM) is underdiagnosed and may be the most common cause of episodic dizziness^{3,4}
- Online patient educational resources regarding other topics in otolaryngology have been characterized as being written at a reading level above that of an average adult in the U.S. and often lack clear actionability^{5,6}

Objective

To assess the readability, understandability, actionability, and accuracy of popular online resources about VM

Methods

Search Terms: “vestibular migraine”, “migraine with vertigo”, “migraine with dizziness”
Inclusion: Top 40 results from each search term written in English and containing more than 100 words
Exclusion: Duplicate websites, Access restrictions, Primarily non-text media
Sites Reviewed: 11 (of 120 results); Categorized into For-profit, Non-profit – Academic, and Non-profit – Other

Tests Performed:
Flesch Reading Ease (FRE)

- Calculated using the average sentence length (in words) and word length (in syllables) of the text
- Grading scale: 0–60 difficult to read, 60–70 standard, and 70–100 easy to read⁷

Flesch-Kincaid Grade Level (FKGL)

- Describes the U.S. grade level of education needed to understand the text
- Agency for Healthcare Research and Quality (AHRQ) recommends that materials be written at a 5th grade level (an equivalent FRE of 90)⁸

Patient Education Materials Assessment Tool (PEMAT)

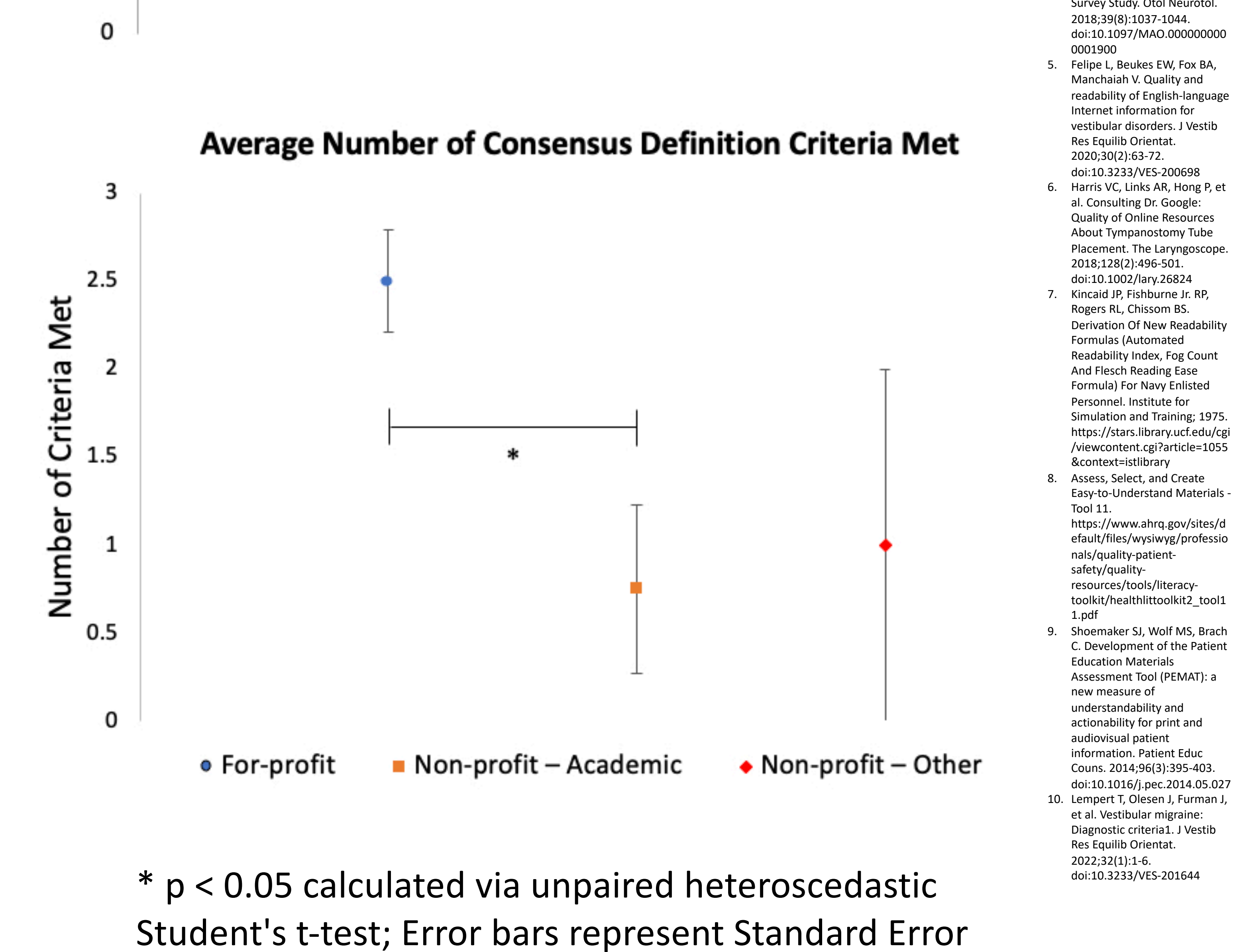
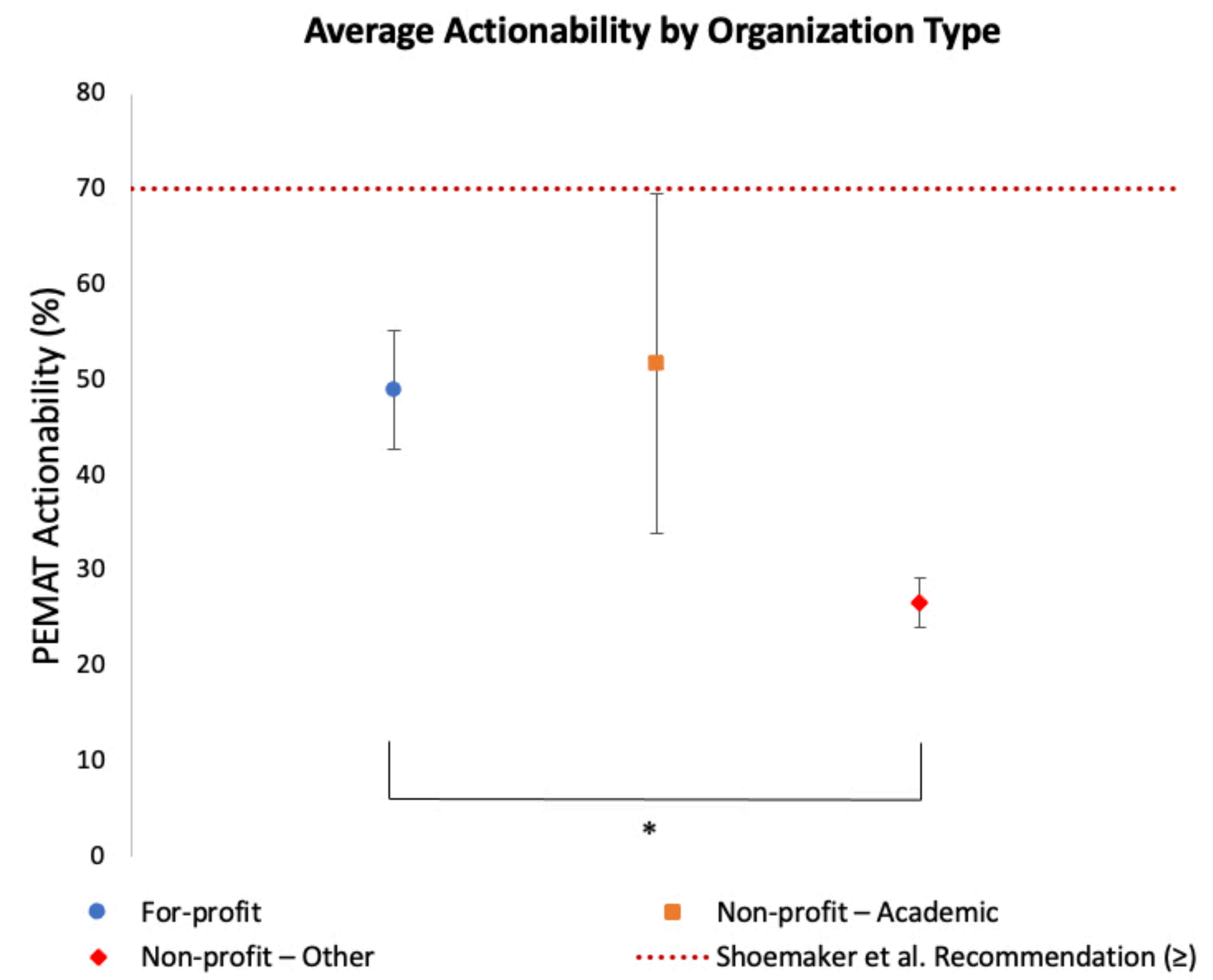
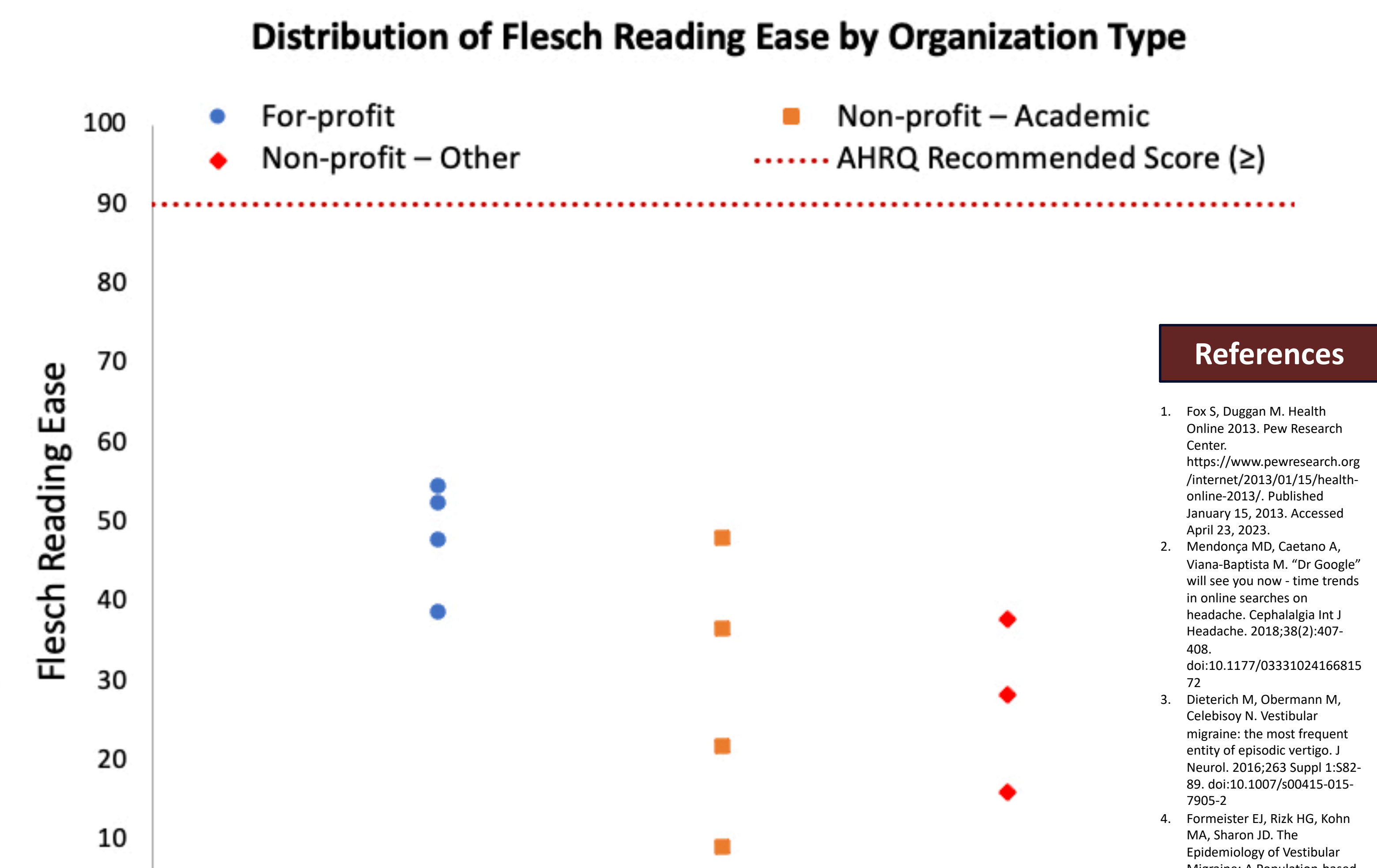
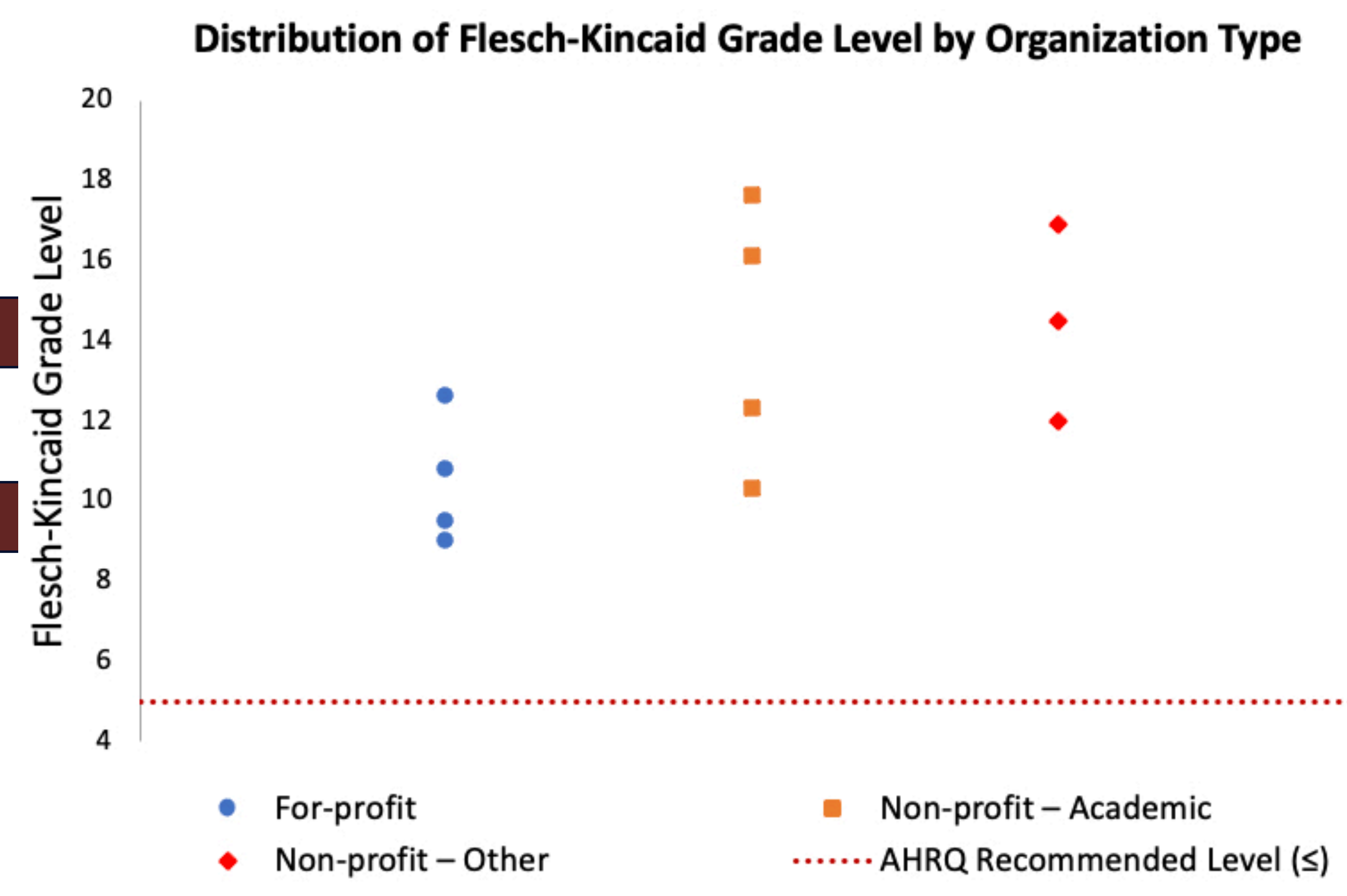
- Evaluates understandability and actionability by having raters answer standardized questions about the content—a score of ≥70% is recommended⁹
- Two physicians and three medical students rated the material

Accuracy

- How many of the diagnostic criteria for “probable vestibular migraine” does the website convey (out of 3)?
- Evaluated by two board-certified otolaryngologists

- “Probable VM” from The Bárány Society and IHS¹⁰:**
- At least 5 episodes with vestibular symptoms of moderate or severe intensity, lasting 5 min to 72 hrs;
 - Only one of the following is fulfilled:
 - Current or previous history of migraine with or without aura according to the International Classification of Headache Disorders (ICHD-3);
 - One or more migraine features with at least 50% of the vestibular episodes:
 - Headache with at least two of the following characteristics: one sided location, pulsating quality, moderate or severe pain intensity, aggravation by routine physical activity;
 - Photophobia and phonophobia;
 - Visual aura;
 - Not better accounted for by another vestibular or ICHD diagnosis.

Results



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Conclusion

The quality of popular online resources for VM is poor in terms of readability, actionability, and alignment with diagnostic criteria. Clinicians should recognize these inadequacies and supplement with counseling/well-constructed aids to help patients better participate in their healthcare decisions.

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