

Introduction

- Sialendoscopy has rapidly evolved as a minimally invasive diagnostic and therapeutic treatment option for patients with obstructive sialadenitis.
- Patients are increasingly turning to the internet for medical information, but there is a lack of standardized guidelines for patient-centered education materials (PEM).
- The National Institute of Health recommends PEMs to be at a 6th-grade reading level, and the National Assessment of Adult Literacy, estimates only 12% of Americans have proficient health literacy skills,
- This study aims to assess the readability of online PEMs related to sialendoscopy, using a common search engine.

Design/Sample

- An internet search for the word “sialendoscopy” was conducted utilizing the Google search engine.
- The top 50 results from that search were analyzed and categorized as patient- or professional-oriented material and further categorized by source of origin.
- All advertisements, videos, social media sites, broken links, and pages without text were excluded
- Texts were analyzed using an online readability calculator using the Flesch Reading Ease Scores (FRES) and seven other well validated reading scales.

Analysis

- Professional-oriented and patient-oriented scores were compared using a two-tailed unpaired t-test with unequal variance.
- Readability scores were compared across sources of origin using one-way ANOVA.
- For all tests, $p < .05$ was considered statistically significant.

Results

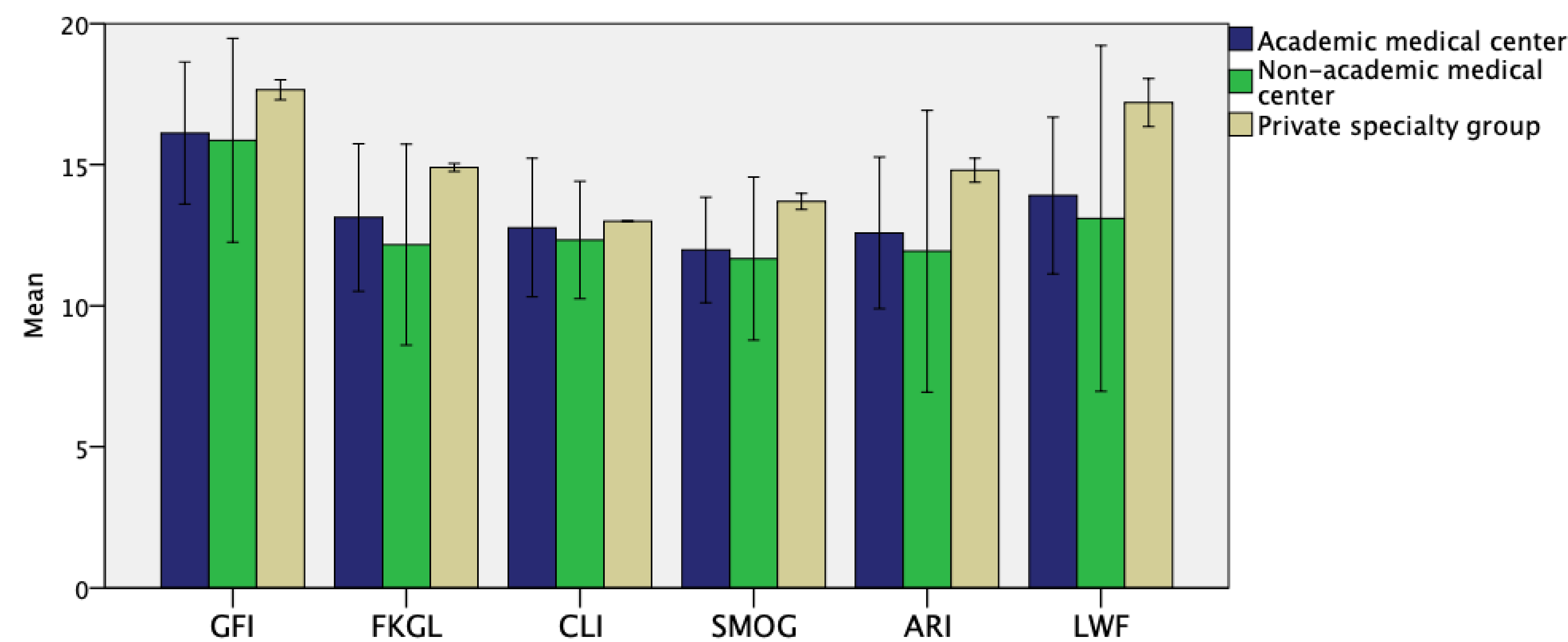


Figure 1. Comparison of readability scores between source of publication

Measurement tool	Score, mean ± SD	Mean score equivalent
FRES	32.8 ± 16.3	Difficult to read
GFI	16.6 ± 3.2	College Senior
FKGL	13.5 ± 3.0	College Freshman
CLI	13.1 ± 2.6	College Freshman
SMOG	12.3 ± 2.3	Twelfth Grade
ARI	13.0 ± 3.5	College Freshman
LWF	14.3 ± 4.0	College Sophomore

FRES – Flesch Reading Ease Score, GFI – Gunning Fog Index, FKGL – Flesch-Kincaid Grade Level, CLI – Coleman-Liau Index, SMOG – Simple Measure of Gobbledygook Index, ARI – Automated Readability Index, LWF – Linsear Write Formula

Table 1. Readability scores for online patient education materials.

	Patient-Oriented Online Resources	Professional-Oriented Online Resources	Significance
FRES	33.8 ± 16.6	25.2 ± 14.4	0.16
GFI	16.5 ± 2.9	17.0 ± 5.8	0.46
FKGL	13.4 ± 2.9	14.3 ± 4.4	0.32
CLI	13.1 ± 2.7	13.3 ± 2.5	0.32
SMOG	12.3 ± 2.1	12.9 ± 4.1	0.42
ARI	13.0 ± 3.2	12.7 ± 6.6	0.60
LWF	14.3 ± 3.4	14.3 ± 8.5	0.71

Table 2. Comparison of readability scores between patient- and professional-oriented online resources

Summary

- 22 websites met the inclusion criteria
- Across the seven readability scales, five scales scored the PEMS at college level, one scored the material at twelfth grade reading level and the FRES scale average score was 32.8 (Difficult to read).
- Readability scores from all 7 instruments were not significantly different between patient-oriented and professional-oriented resources ($p > 0.05$).
- No significant differences in readability was noted amongst PEMs when evaluated by source-type ($p > 0.05$).

Conclusions/Further Study

- Our findings suggest the readability of PEMs related to sialendoscopy exceeds the recommended reading level set by the NIH and materials aimed at patients are as difficult to read as those meant for healthcare professionals.
- The findings underscore the need for improving the readability of online PEMs to enhance patient understanding and communication between physicians and patients.
- The study acknowledges limitations, such as the narrow focus on search engine results and the variety of reading tools used.
- Nevertheless, it emphasizes the responsibility of otolaryngologists to provide accessible and easily comprehensible PEMs in the digital age.

Acknowledgements

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