

Pharmacist Assessment of Health Literacy in Children and Caregivers



Renée Dagenais, B.Sc.(Pharm), Pharmacy Resident; Jennifer Kendrick, B.Sc.(Pharm), ACPR, Pharm.D; Roxane Carr, B.Sc.(Pharm), ACPR, Pharm.D

Background

- Children of caregivers with low health literacy are more likely to
 - Have negative health outcomes
 - Have suboptimal medication adherence and disease management
 - Receive incorrect medication dosages
 - Have repeat non-urgent ED visits
- Healthcare professionals are often either unaware of or overestimate health literacy status
- There are several validated tools designed to assess health literacy
- Pharmacist assessment of health literacy has not been previously described
- The use of health literacy assessment tools is not currently part of routine practice at Children's & Women's Health Centre of BC (C&W)

Objectives

Primary

- To determine pharmacists' preferred health literacy assessment tool for children and caregivers

Secondary

- To describe pharmacists' confidence in using each of the selected health literacy assessment tools
- To describe the feasibility of pharmacists assessing health literacy in routine clinical practice as well as potential barriers

Methods

- C&W Research Ethics Board Approval received
- Design:** Prospective study with electronic survey
- Inclusion:** C&W clinical pharmacists involved in direct patient care
- Procedures:**
 - The Newest Vital Sign (NVS), Short Assessment of Adult Health Literacy-English (SAHL-E), Rapid Estimate of Adult Literacy in Medicine-Short Form (REALM-SF), and REALM-Teen were the health literacy assessment tools selected for the study, each with reported administration times of ≤ 3 minutes
 - Pharmacists participated in a 30-minute health literacy education session
 - After providing informed consent, pharmacists were asked to trial the selected tools over a 12-week period
 - At the end of the trial period, pharmacists completed an electronic survey regarding tool preference
- Statistical Analysis:** Descriptive statistics

Results

- 20 of 33 clinical pharmacists (60.1%) consented to participate
- 17 (85%) pharmacists completed the survey

Figure 1: Reported Use of Health Literacy Assessment Tools

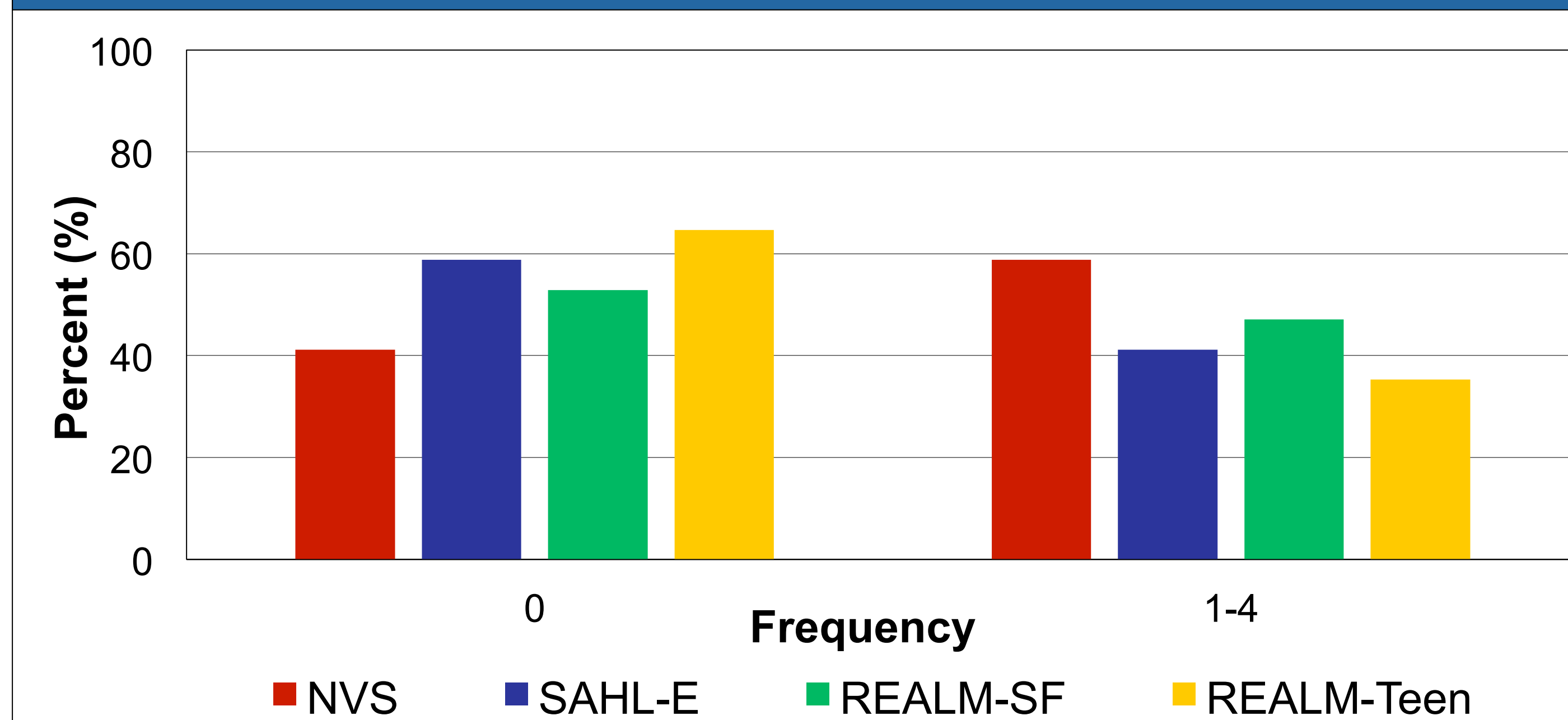


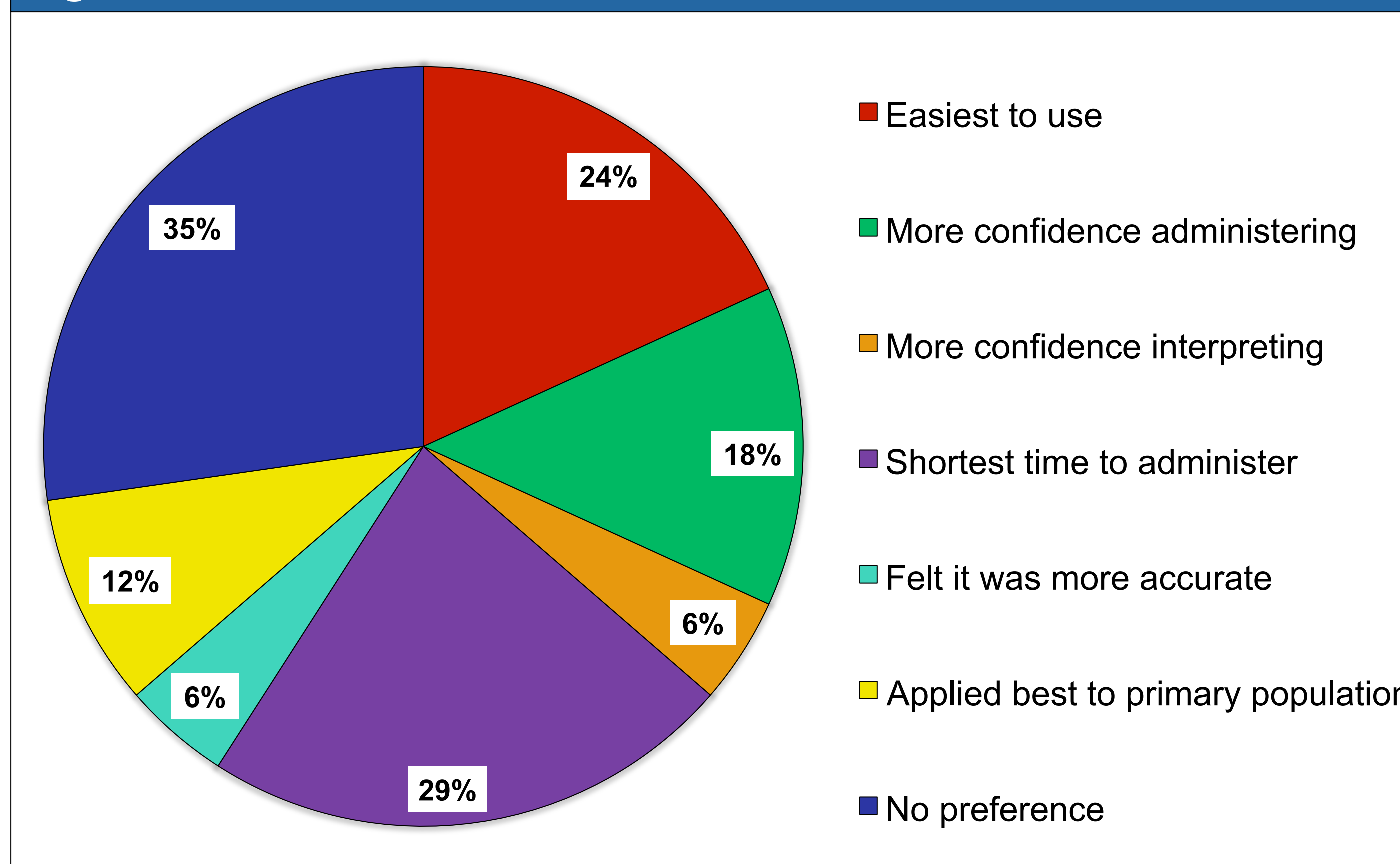
Table 1: Health Literacy Assessment Tool Preference

Tool	Median Score* (range)
NVS (n=8)	2 (1-4)
SAHL-E (n=8)	2.5 (1-4)
REALM-SF (n=10)	2 (1-4)
REALM-Teen (n=10)	3 (2-4)

*Most-preferred = 1, Least preferred = 4

- 8 (47%) preferred to not use any of the tools
- 5 (29%) stated selection of a tool would be situation-dependent

Figure 2: Reasons for Tool Preference



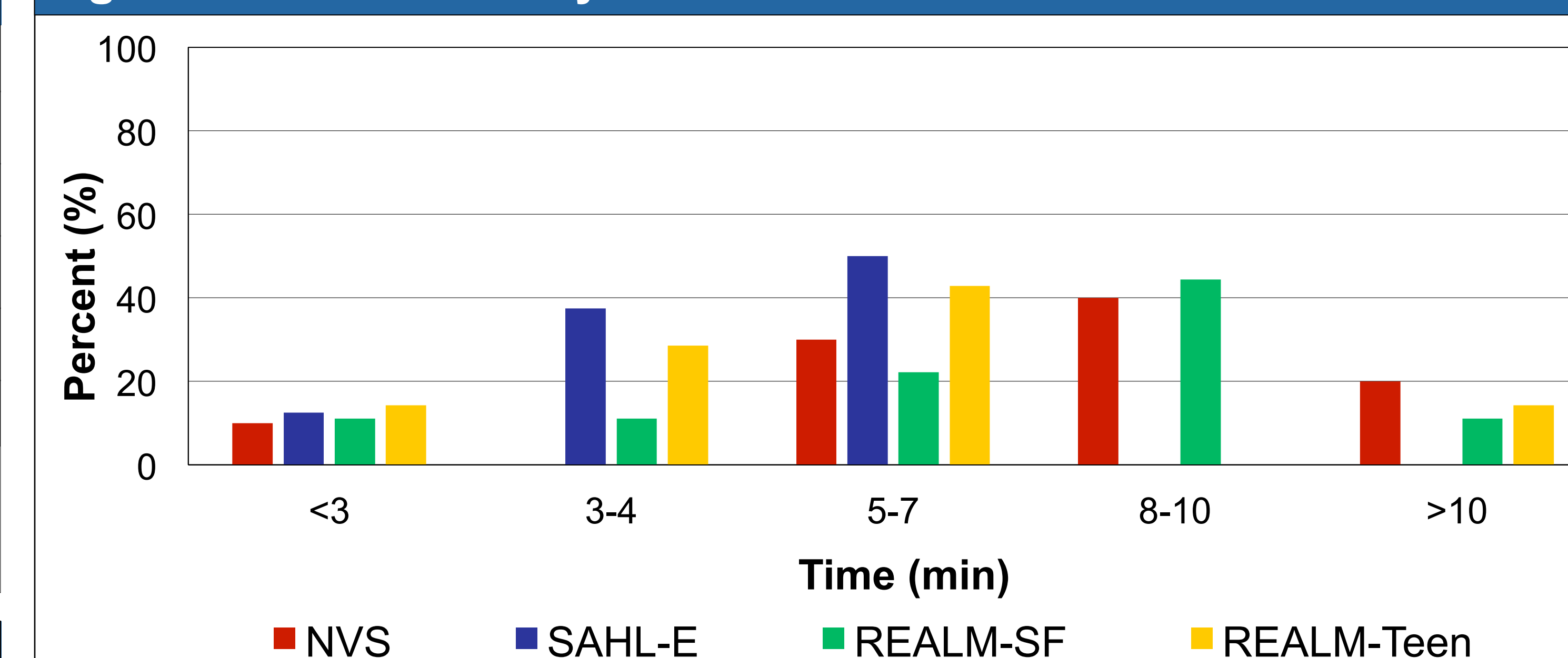
Results

Table 2: Impression of Health Literacy Assessment Tools

Outcome	NVS median (range)*	SAHL-E median (range)*	REALM-SF median (range)*	REALM-Teen median (range)*
Confident administering	4 (2-5)	3.5 (2-4)	3 (2-4)	4 (2-5)
Confident interpreting	3.5 (3-5)	3 (2-5)	3 (2-4)	3 (2-4)
Easy to use	3 (2-5)	4 (2-5)	4 (2-5)	3.5 (2-5)
Reasonable time to administer	2 (1-5)	2.5 (1-3)	4 (1-5)	3 (1-5)
Accurate measure of health literacy	3 (1-4)	3 (1-4)	3 (1-4)	2.5 (1-4)
Improved assessment of health literacy	2 (1-4)	2 (1-3)	2.5 (1-5)	2 (1-3)

*Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly agree = 5

Figure 3: Health Literacy Assessment Tool Administration Time



- The mean administration time exceeded the administration time reported in the literature for all of the assessment tools

Reported barriers to implementing an assessment tool:

- Time for administration
- Tools didn't improve ability to assess health literacy
- Tools didn't change provision of medication teaching
- Awkward or uncomfortable administering the tools
- Perceived patients/caregivers uncomfortable with assessment
- Words interpreted as inappropriate or potential 'triggers' (e.g. anorexia, bulimia, suicide, violence)

Conclusions

- NVS and REALM-SF tools were equally preferred
- Pharmacists felt confident administering and interpreting the tools
- Feasibility may be limited by time required to administer
- Further research is required to address barriers to pharmacists' routine use of health literacy assessment tools in clinical practice