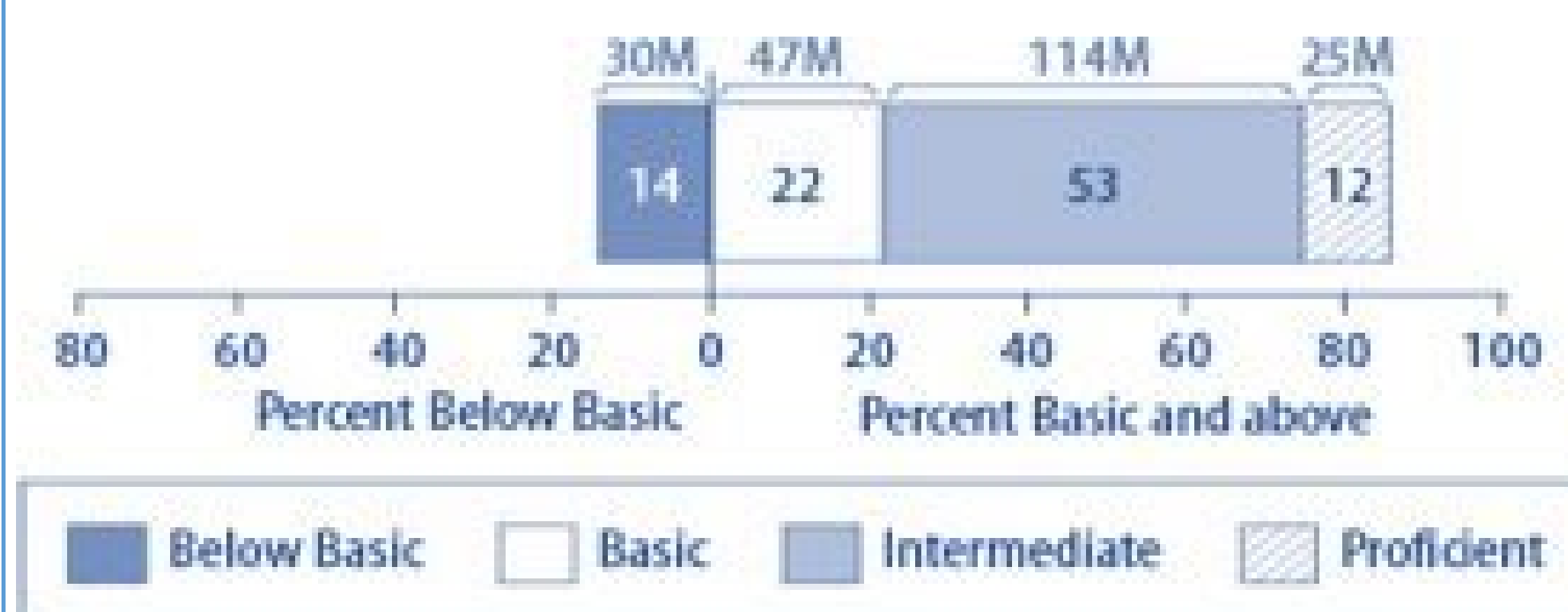
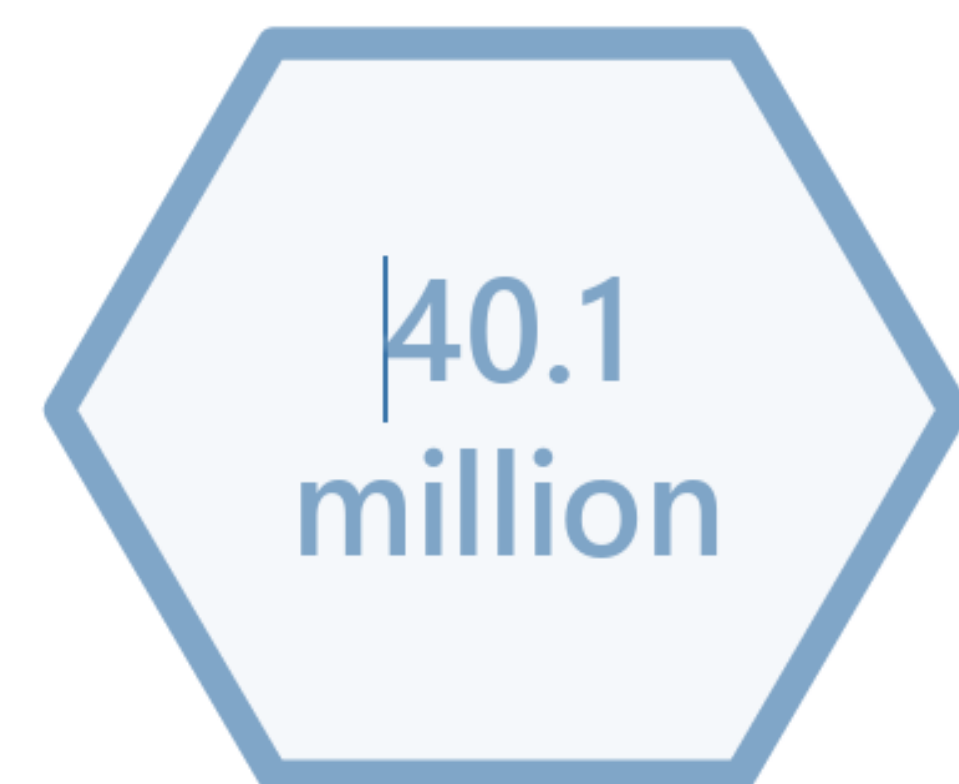


Hemoglobin A1C: Evaluating Health Literacy and Glycemic Control in Patients with Type 2 Diabetes

INTRODUCTION



77 million adult Americans function at or below basic health literacy. (NCES, n.d.)



Number of people with diabetes in the United States (CDC, 2023)

PURPOSE

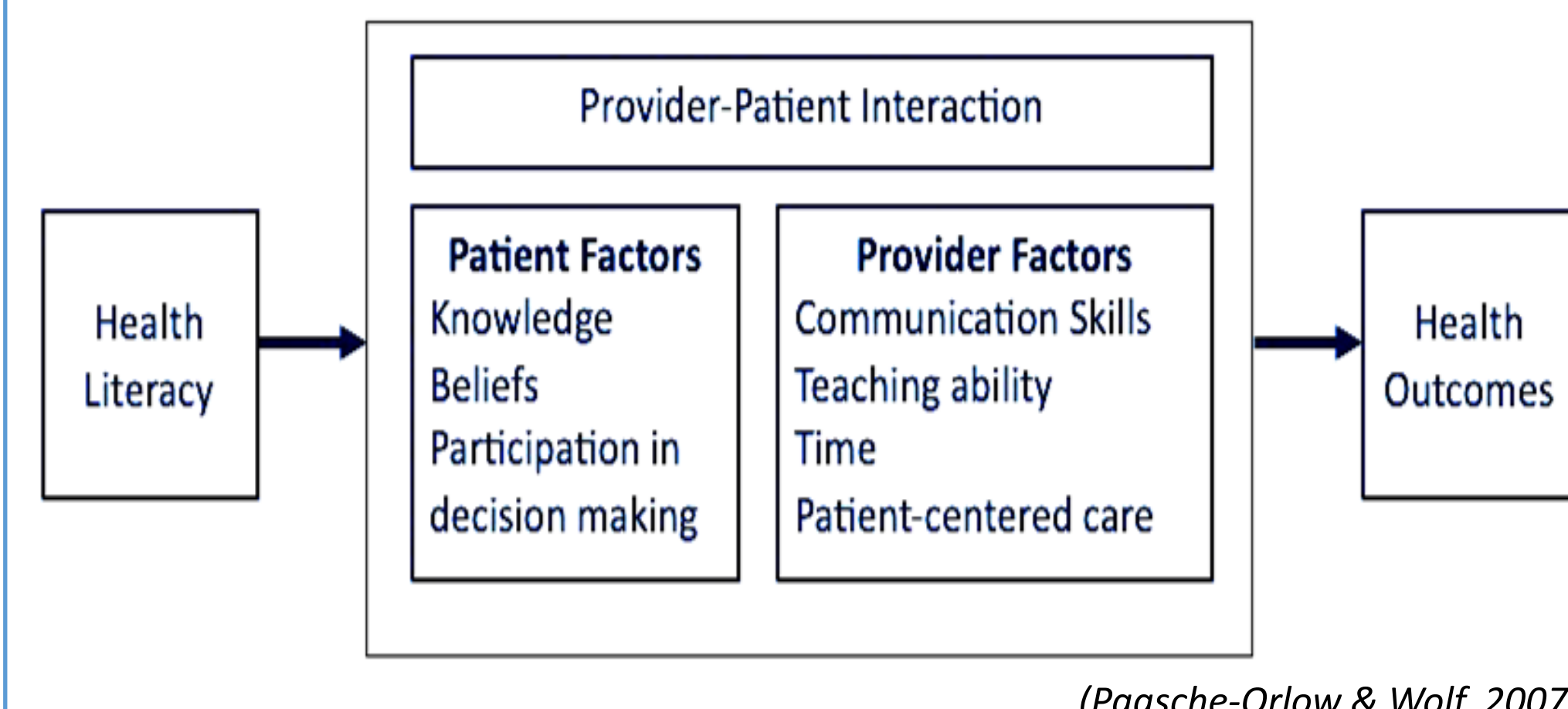
To examine the impact of health literacy on A1C awareness, diabetes knowledge, and glycemic control.

AIMS

1. To explore how people with diabetes understand the concept of A1C
2. To examine relationships between health literacy level and diabetes knowledge, glycemic control, and A1C awareness
3. To evaluate the impact of a diabetes education intervention on glycemic control

CONCEPTUAL FRAMEWORK

The Causal Pathways between Limited Health Literacy and Health Outcomes



(Paasche-Orlow & Wolf, 2007)

METHODS

Design

- Descriptive, correlational, quasi-experimental

Site and Sample

- Safety-net clinic in Queens, NY
- Adult patients 18+ with Type 2 Diabetes
- English, Spanish, or Bengali speaking

Instruments

- BRIEF Health Literacy Screening tool
- Spoken Knowledge in Low Literacy in Diabetes (SKILL-D) scale
- A1C awareness survey

Interventions

- Visual aids
 - 3 liquid filled tubes reflecting varying A1C levels
 - A1C to EAG conversion chart
- Teach-back
 - What is A1C ?
 - Why is A1C important ?

RESULTS

Baseline Characteristics

- Average A1C: 9.8%
- Self-reported A1C was congruent with baseline A1C

Health Literacy & A1C Awareness

- Low A1C awareness was linked to limited or marginal health literacy
- Adequate health literacy was associated with higher A1C awareness
- Individuals with adequate health literacy reported their A1C more frequently

Glycemic Outcomes

- Mean A1C decreased at 3–6 months following the teaching intervention
- As A1C baseline increased, A1C awareness decreased

Non-Significant Findings

- A1C decrease was not associated with health literacy level or teach-back ability
- Baseline glycemic control was not correlated with health literacy level
- Diabetes knowledge was not related to health literacy level

LIMITATIONS

- Convenience sampling creates selection bias
- Single-site study limits generalizability
- A1C awareness survey not validated
- No longitudinal follow-up to assess long term outcomes
- Language translation may have impacted data accuracy

IMPLICATIONS FOR PRACTICE

- Apply health literacy universal precautions in all patient interactions
- Recognize health literacy as a shared responsibility
 - Enhance organizational health literacy practices
 - Strengthen communication between patients and providers
- Empower nurses to improve patients' A1C awareness at hospital discharge and in clinic settings

FUTURE RESEARCH

- Update and expands national health literacy survey
- Explore strategies for creating health literate environments
- Assess health literacy knowledge and experience of health professionals

