

INTRODUCTION

- **What is Health Literacy (HL)?**
 - Ability to read, write, listen, comprehend, and speak a language (WHO, n.d.)
 - Ability to obtain, process, and understand health information to make informed health decisions (IOM, 2004)
- **What role does a nurse play?**
 - Provide health information
 - Influence health consumers with how the information is organized, presented, and communicated (Johnson, 2015)
- **What is the purpose of the project?**
 - Measure the extent to which individualized education based on health literacy levels and preferred methods of learning can affect medication adherence to improve patient outcomes

BACKGROUND/SIGNIFICANCE

- Chronic diseases such as cancer are the most common and expensive health conditions
- 16.9 million individuals living in the US with cancer in 2019 (ACS, 2020)
- 90% of the \$3.5 trillion in healthcare spending is from chronic and mental health conditions (CDC, n.d.)
- Estimated \$174 billion will be spent on the cost of cancer in 2020 (NCI, n.d.)
- Poor HL equals poor health and poor outcomes (Johnson, 2015)
- Suboptimal decision making results in poorly managed chronic conditions, overuse of emergency services, preventable admissions
- Effective patient education can yield patient medication adherence (Kean et al., 2016)
- Education not effective if materials do not match reading level (Johnson, 2015)

REFERENCES

AVAILABLE ON SEPARATE SHEET

CONTACT INFORMATION

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METHODOLOGY

Design

- Retrospective program evaluation/chart review

Project Site and Population

- Urban, academic, ambulatory oncology adult infusion center
- NCI designated CCC
- Adult oncology patients over the age of 18 receiving first outpatient cancer treatment

Sample

- Retrospective chart review of 34 first time infusion patients
- 19 Infusion nurses

Measures

- Demographics
- HL score, preferred learning style
- Symptom Management
 - self-reported medication adherence
 - pain score
 - self-reported nausea and vomiting incidence
- Nursing documentation

Analysis

- Data Analysis
 - Demographics: SPSS v 27, descriptive statistics
 - Wilcoxon signed rank test
 - Compare the related samples to test hypothesis on symptom management
 - Independent t test
 - Compare symptom management at the second visit between two groups of patient HL scores
 - Correlation matrix and descriptive data
 - Evaluate staff nurses' views of the educational activity

RESULTS

Demographic Characteristics

- Minimal diversity noted in the sample
- Majority of the patients were white, non-Hispanic, insured, and were from central and northern New Jersey
- Mean age of the sample was 63 years old. Ages ranging between 40 and 85.

Findings

- Individualized Education and Symptom Management
 - Wilcoxon signed-rank test
 - No statistical relationships
 - Independent t test
 - Compare symptom management at the second visit between groups of patients who had HL scores \leq 60 to patients with HL scores 61-66
 - No statistical significance
- Medication Adherence
 - No missed doses recorded
 - 100% medication adherence
- Educational Activity
 - Chart audit of 34 Initial Patient Visits
 - $<$ 1% of charts with missing symptom management documentation
 - Nurse Survey
 - Administered 10 question Survey Monkey
 - N=19 respondents

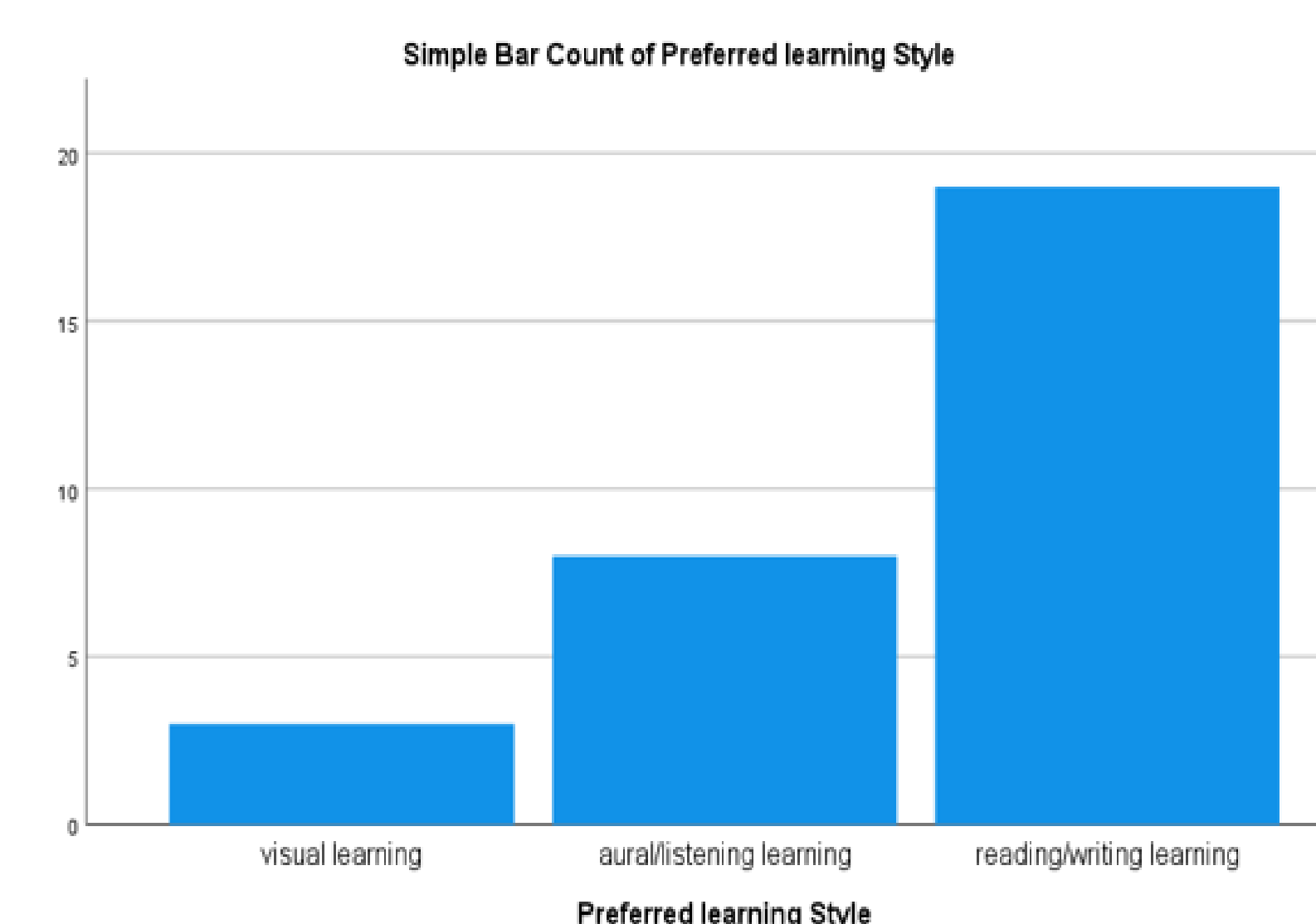
REALM

Sample REALM Health Literacy Scores

Grade Category	n (%)
3rd grade or less 0-18	0 (0)
4th through 6th grade 19-44	1 (0.03)
7th or 8th grade 45-60	6 (17.6)
9th grade or more 61-66	27 (79.4)

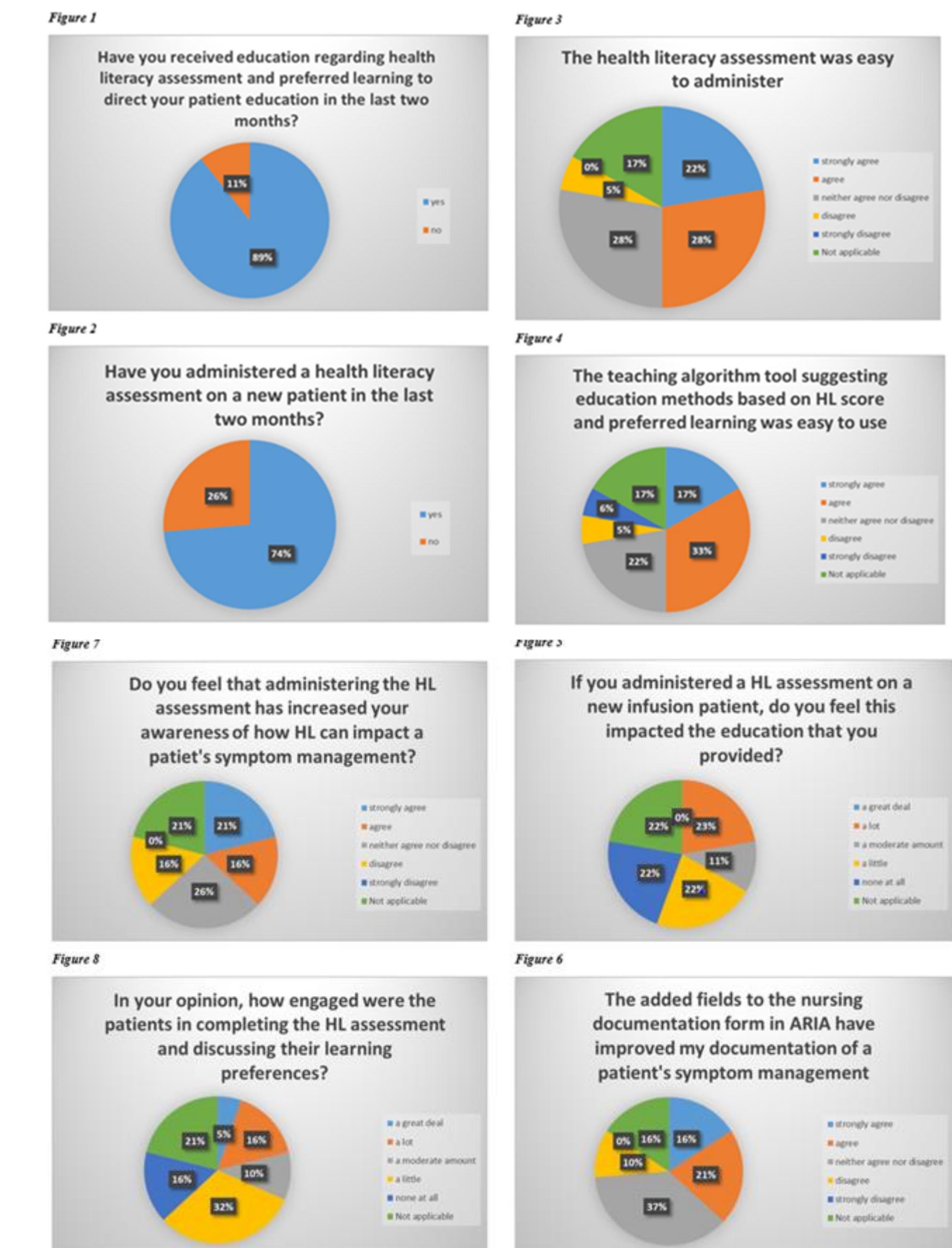
Note. N=34; All participants completed HL assessments. There were no missing data.

SAMPLE PREFERRED LEARNING STYLES



Note: N=34; No patients selected kinesthetic as their preferred learning style 30 patients provided preferred learning style. There was missing data on four patients.

NURSE SURVEY



DISCUSSION

- Medication adherence result was similar to those of the literature reviewed where HL and learning styles were used to tailor the education
- Lack of diversity and higher-level HL scores could be related to the sample size and the choice of the HL assessment tool
- Type 2 error likely related to the small sample size in regard to symptom management

IMPLICATIONS

- The individualized patient education plan developed could be used in multiple other settings within this cancer center as well as others throughout the health system
- Exploring a different time point for HL screening to occur would be more appropriate
- Should be implemented as a practice standard within the ambulatory oncology setting
- Study furnishes information that policymakers can consider when assessing and designing programs used to control chronic conditions.
- Findings could be useful in reducing the overall cost of healthcare and healthcare spending
- Findings from the staff survey support the need for education of our healthcare providers regarding HL and preferred learning style

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