

INTRODUCTION

- Health literacy is described as the currency for improving the quality of health and health care in America
- Low health literacy can make it difficult for patients to function effectively in the health care system and make the communication between doctors and patients become more challenging.
- The National Adult Literacy Survey (NALS) conducted in 1992 in 26,000 American adults and found half of U.S. adults have limited or low literacy skills
- Limited health literacy costs more than eight billion dollars in the US, an estimated 3-5% of the total health care budget in Canada in 2009
- Low health literacy is usually associated with patients who have limited education, lower income, chronic conditions, and those who are non-native English speakers.

PURPOSE

To determine whether the health literacy level will strongly be associated with infectious disease for patients with chronic conditions. If the results show low health literacy levels in most infectious patients, then will come up with a solution to help patients prevent getting an infection in the future. By improving the health literacy level, we can improve patient safety and reliability of care.

METHODS

- Cross-sectional observational survey method
- Christian Hospital, St. Louis, Missouri
 - IRB approval from SIUE – protocol number #1288
 - Using SAHL health literacy assessment tools in a survey form to access patients’ health literacy
 - SAHL health literacy assessment included 18 questions related to demographic or background data
 - Due to Covid restrictions, the SAHL health literacy assessment was converted to a paper survey assessment instead of face-to-face interviews.
- The survey was administered outpatient on November 27th, 2021
- Any incomplete surveys were excluded from the analysis
- No patient identifiers were collected from the survey
- Inclusion criteria:
 - Age between 18 and 89 years old
 - Chronic conditions
 - Currently positive with infectious disease

METHODS

- The results were calculated by the researcher and patients’ health literacy will be determined based on their scores
- A score of 14 or less out of 18 points will consider low health literacy.
- Data analysis will be conducted based on the sum of the percentage of patients who have low health literacy levels versus the total number of responses

RESULTS

- 16 patients who completed the SAHL-Health Literacy level assessment.
 - 50% of patients had a total score between 0-14
 - 8 out of 16 infectious patients with chronic conditions had low health literacy level

Figure 1: Results from SAHL-Health Literacy levels assessment in 16 patients in chronic

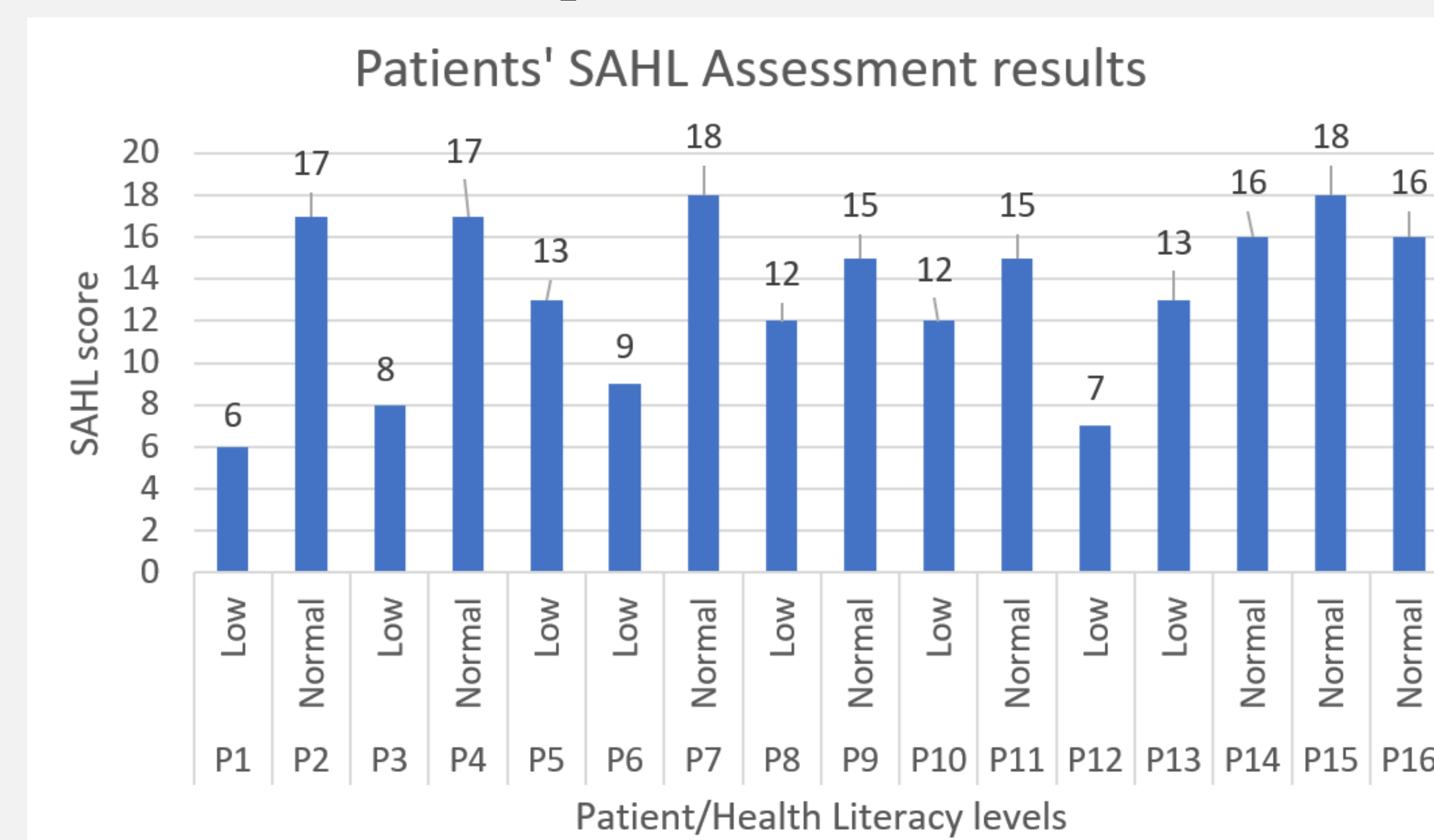
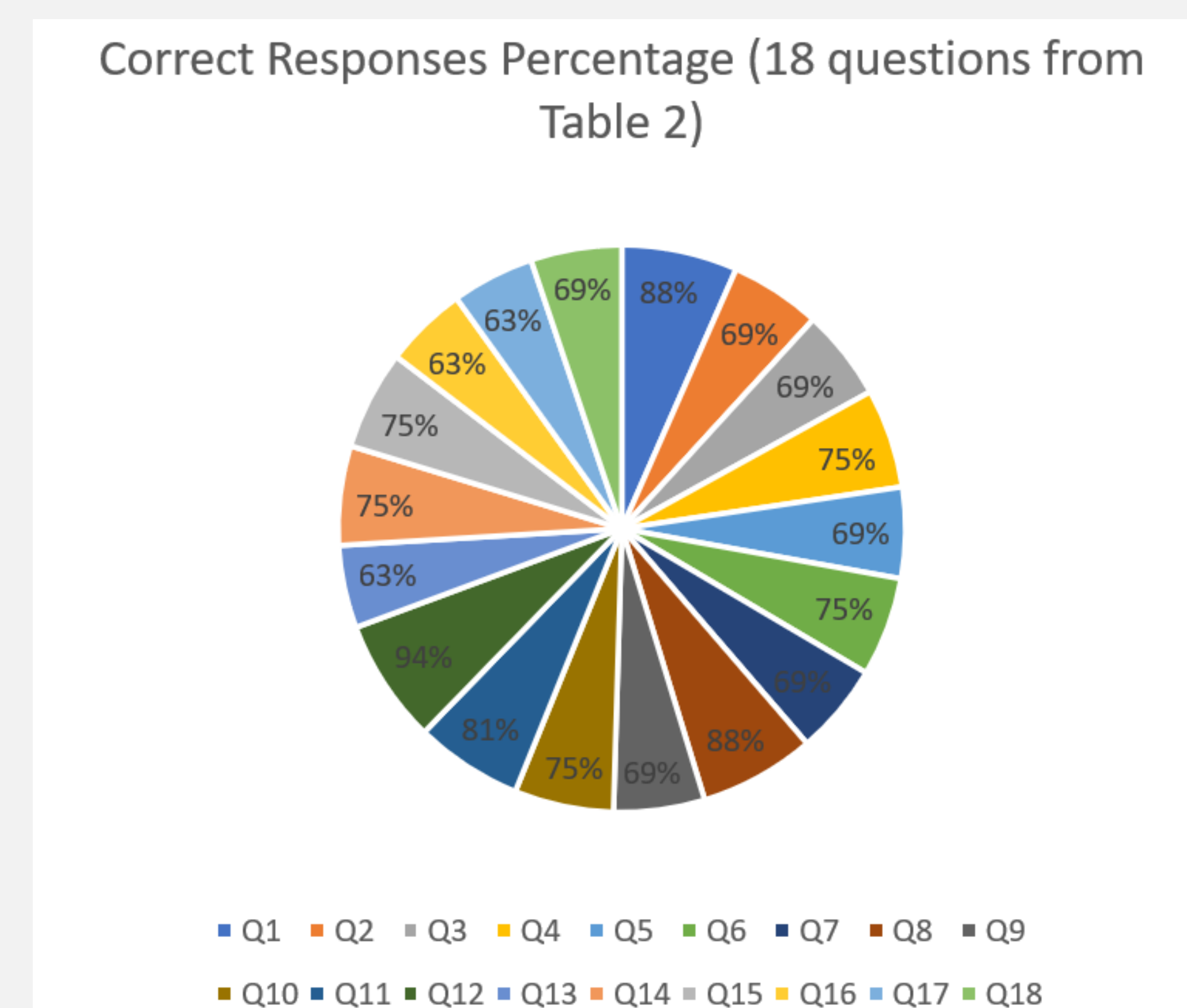


Figure 2: The correct responses Percentage in 18 questions from the SAHL health literacy assessment



RESULTS

- The average percentage of patients with correct answers was 74%, ranging between 63-88 percent.
- Eight out of sixteen patients answered “don’t know” on the SAHL assessment
- The average score for all sixteen patients was 13.25/18 (73.7%) with the lowest score of 6/18 (33.3%) and the highest 18/18 (100%)

CONCLUSION

- The health literacy level is more likely to have a strong relationship with infectious disease in patients with chronic conditions.
- Half of the patients are classified as having low health literacy levels from this study.
- Patients with limited or low health literacy levels might be at higher risk of infections and may be difficult to treat.
- Small sample size limits the generalizability and weakens the external validity.
- Further study with a larger sample size should be conducted to give a clear conclusion about the relationship between health literacy level and infectious disease.
- Potential solutions:
 - Patient-centered communication.
 - Confirmation of understanding
 - Clear health information
 - Health education materials
 - Large font
 - Pictures
 - Clear headings and layout

REFERENCES

1. Paasche-Orlow, Michael K et al. “The prevalence of limited health literacy.” Journal of general internal medicine vol. 20,2 (2005): 175-84. doi:10.1111/j.1525-1497.2005.40245.x
2. Kirsch I, Jungeblut A, Jenkins L, Kolstad A. Adult Literacy in America: A First Look at the Findings of the National Adult Literacy Survey. Washington, DC: National Center for Education Statistics, U.S. Department of Education; 1993
3. “Health Literacy.” Official Web Site of the U.S. Health Resources & Services Administration, 13 Aug. 2019. www.hrsa.gov/about/organization/bureaus/ohe/health-literacy/index.html.
4. Jayasinghe, Upali W et al. “The impact of health literacy and lifestyle risk factors on health-related quality of life of Australian patients.” Health and quality of life outcomes vol. 14 68. 4 May. 2016. doi:10.1186/s12955-016-0471-1
5. Castro-Sánchez E, Chang PWS, Vila-Candel R, Escobedo AA, Holmes AH. Health literacy and infectious diseases: why does it matter? Int J Infect Dis. 2016 Feb;43:103-110. doi: 10.1016/j.ijid.2015.12.019. Epub 2016 Jan 2. PMID: 26751238.
6. Kickbusch, Ilona. Health Literacy: The Solid Facts. WHO. Regional Office for Europe, 2013.
7. Yang, Peng et al. “Infectious disease-specific health literacy in Tibet, China.” Health promotion international vol. 33,1 (2018): 84-91. doi:10.1093/heapro/daw054
8. Hickey, Kathleen T et al. “Low health literacy: Implications for managing cardiac patients in practice.” The Nurse practitioner vol. 43,8 (2018): 49-55. doi:10.1097/01.NPR.0000541468.54290.49
9. Lee, Shou-Yih Daniel et al. “Short Assessment of Health Literacy-Spanish and English: a comparable test of health literacy for Spanish and English speakers.” Health services research vol. 45,4 (2010): 1105-20. doi:10.1111/j.1475-6773.2010.01119.
10. Berkman, Nancy D et al. “Low health literacy and health outcomes: an updated systematic review.” Annals of internal medicine vol. 155,2 (2011): 97-107. doi:10.7326/0003-4819-155-2-201107190-00005
11. “Health Literacy.” Health Literacy | Healthy People 2020, https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/health-literacy.