Effects of Income and Language on Health Literacy: A study between a Student-Run Free Clinic & a Family Medicine Office

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Background

● Health literacy involves the ability to comprehend and apply information from textual, numerical, and document-based sources, such as medication labels and medical forms.1

● Unfortunately, over one-third of the US population, accounting for 80 million individuals, exhibit limited health literacy, leading to negative health outcomes and lifestyle choices.1,2

● To evaluate health literacy in primary care settings, healthcare professionals use the validated Newest Vital Sign (NVS) assessment, a short survey that can efficiently screen for limited health literacy.3

● Rowan-Virtua Community Health Center (RCHC) is a student-run clinic situated in Lindenwold, NJ, which aims to offer primary care services free of cost, irrespective of income, insurance, or legal status.

● By employing the NVS assessment, RCHC sought to compare the health literacy levels of uninsured patients at their facility with those of insured patients at the Rowan Family Medicine (FM) office in Hammonton, NJ. This study aimed to assess specific factors that may influence health literacy levels.

Methods

● This is an IRB approved study which surveyed 75 patients enrolled at the RCHC (n = 35) and Rowan Family Medicine Office (n = 40) between February 2021 and March 2023

● After informed consent and demographic information was obtained, patients were given a nutrition label (Figure 2) and verbally answered the NVS Assessment (Figure 1)

● Data was recorded via Qualtrics forms, and analysis was conducted with Fisher’s Exact Test in IBM SPSS Statistics

Results

● Statistically significant increase in prevalence of limited literacy (score ≤3) compared to adequate literacy (score ≥4) among patients below the poverty line (p=0.038) and Spanish speaking patients (p=0.041)

● No significant difference between limited literacy (score ≤3) and adequate literacy (score ≥4) based on:
  ○ RCHC vs. FM office (p=1)
  ○ Insurance status (p=0.342)
  ○ Gender (p=0.808)
  ○ Education level (p=0.18)

Conclusion

● Income below the poverty line and Spanish as a primary language played a significant role in health literacy in our patient population.

● We determined that a language barrier was not a factor in our Spanish speaking patients because an interpreter and a Spanish nutrition label was available.

● Since limited health literacy is highly prevalent in the US, it is important that physicians allot more time to explain medical terms to patients whose primary language is not English or who are from a low socioeconomic status. Additionally, they should utilize simple infographics and pamphlets.1

● Limitations: small sample sizes, no current interventions for limited health literacy

● Next steps: RCHC hopes to design and implement a health literacy course for patients.

References

