Assessment of Health Literacy Training in P1 Pharmacy Students

Jonathan P. Brady, PharmD, Edward F. Foote, PharmD, FCCP, BCPS, Scott Bolest, PharmD, BCPS
Department of Pharmacy Practice, Nesbitt College of Pharmacy and Nursing, Wilkes University, Wilkes-Barre, PA

INTRODUCTION

- According to the 2003 National Assessment of Adult Literacy (NAAL), approximately 89 million Americans have limited health literacy.1
- Pharmacists need to be able to identify potential health literacy limitations, perform patient assessments of health literacy, and adapt communication techniques to improve patient understanding.
- Wilkes University P1 pharmacy students are exposed to health literacy concepts during one lecture of the Foundations of Pharmacy Practice II course.
- In the 2012 spring semester, active learning exercises and a pre-class assignment involving health literacy assessment were developed and incorporated into the health literacy component of Foundations of Pharmacy Practice II.

OBJECTIVES

- To measure the effects of a learning experience on knowledge and confidence of health literacy in P1 pharmacy students.

METHODS

- All 72 P1 students participated in the health literacy educational experience.
- A pre-class assignment involved student assessment of health literacy in a patient using three different tools: Rapid Estimate of Adult Literacy in Medicine (REALM), Short Test of Functional Health Literacy in Adults (STOFHLA), and Newest Vital Sign (NVS).
- During a two hour class, students participated in lecture and active learning exercises which addressed several components of health literacy, including: patient assessment, risk factor identification, recognition of signs of low health literacy, and counseling techniques.
- Prior to, and immediately after class, students completed assessments consisting of identical knowledge and confidence surveys, which were adapted from a previous study.3
- The post-class survey included a retrospective pre-test confidence component to assess response-shift bias, and students were asked to provide feedback regarding the educational experience and use of assessment tools.
- Surveys were completed anonymously and voluntary. A five-point Likert scale (1 = Not at all confident to 5 = Extremely confident) was used for the confidence survey.
- This study was reviewed and approved by the Wilkes University Institutional Review Board.

STATISTICAL ANALYSIS

- The Wilcoxon signed rank test was used to assess ordinal data and the McNemar test was used to assess nominal data. Paired t-tests were used to evaluate differences in mean knowledge and confidence results.
- A p-value <0.05 was considered statistically significant.
- All other data was analyzed with descriptive statistics.

RESULTS

90% of the class (n=65) completed the survey. Paired data was available for 79% of the class (n=57).

STUDENT SURVEY QUESTIONS (N=65) REALM STOFHLA NVS

<table>
<thead>
<tr>
<th>Question</th>
<th>REALM (%)</th>
<th>STOFHLA (%)</th>
<th>NVS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which health literacy assessment tool was easiest to use?</td>
<td>84.6%</td>
<td>3.0%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Which health literacy assessment tool would you prefer to use?</td>
<td>9.2%</td>
<td>17.0%</td>
<td>73.8%</td>
</tr>
<tr>
<td>Which health literacy assessment tool do you perceive to be the most effective at evaluating patients?</td>
<td>1.5%</td>
<td>20.0%</td>
<td>78.5%</td>
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SELECTED STUDENT COMMENTS

- “This was a great topic to cover so early in our professional careers because we can use it when we go on our rotations. Also it is helpful to practice, so when we are in the real situation we have an idea of what to do.”
- “I think health literacy concepts should be incorporated into every part of our pharmacy curriculum because we all need to realize its importance.”
- “Health literacy is an important subject that should be taught early in the curriculum in order for students to learn the appropriate techniques and perfect them throughout their education.”
- “It was a good idea to learn about the three literacy tests before class because it gave us a better understanding of what exactly we were doing, and then the importance of it when we came to class.”

CONCLUSION

- Integration of active learning exercises into a didactic lecture and exposure to health literacy assessment tools increased knowledge of health literacy concepts and improved confidence in student ability to perform health literacy activities.
- The significantly lower retrospective pre-test (vs. pre-test) confidence rating suggested the presence of a response-shift bias, which was attenuated by the use of a retrospective pre-test.
- NVS is the preferred assessment tool among this P1 class at Wilkes University. However, experience with each of the available assessment tools is useful to promote awareness of health literacy.
- Further research is needed to determine other areas within the pharmacy curriculum in which health literacy concepts can be incorporated.

REFERENCES