Reading Level of Pharmacy Students and Reading Level of Primary Literature

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INTRODUCTION

To evaluate pharmacy students’ reading levels using the Nelson-Denny Reading Test (NDRT) and compare these results with the reading level of primary literature.

METHODS (continued)

- Nelson-Denny Reading Test (NDRT)
  - NDRT administered to first, second, and third-year pharmacy students
  - Components of NDRT
    - Vocabulary: evaluation of definition of 80 words in 15 min
    - Comprehension: read -600 word passage and answer 30 questions about the reading in 20 min
    - Reading Rate: words read in one minute
  - Grade Equivalents (GE)
    - Total Score = Vocabulary + (2 × Comprehension)
    - GE for Total Score provided in NDRT manual
  - Reading Level of Primary Literature
    - 20 clinical trials from 10 journals identified as most frequently publishing Patient-Oriented Evidence that Matters (POEMs)°
    - Reading score/level obtained for each article section: Abstract, Introduction, Methods, Results, Discussion

RESULTS (continued)

- Overall response rate 49% (100/203)
  - P1 = 9 students
  - P2 = 54 students (83% response rate)
  - P3 = 37 students (50% response rate)

- Demographics
  - Gender
    - Male (n=43)
    - Female (n=2)
  - Prior Education
    - Bachelor’s degree or higher (n=25)
    - No degree (n=12)
  - Race/Ethnicity
    - White (82%)
    - Asian (11%)
    - African American/Black (3%)
    - Hispanic (2%)

- Nelson-Denny Reading Test
  - Grade Equivalent (GE)
    - Mean ± SD: 16.35 ± 2.1
    - Median: 17.3
    - Range: 9.7 - 19.8
  - Statistical differences in mean GE scores for the following:
    - English, first language: 17.3 ± 1.7
    - English, second language: 13.8 ± 3.6
    - Two-sample t-test (equal variances not assumed)
    - Non-English language spoken at home: mean GE 14.5 ± 3.2
    - Only English spoken at home: mean GE 17.3 ± 1.4
    - Reading for pleasure, positive correlations
      - RS Vocabulary (r=0.322, p<0.002)
      - Reading Rate (r=0.310, p<0.002)

- Reading Level of Primary Literature
  - Frequency of Pleasure Reading
    - Type of Reading Material
      - Fiction: 16.5 ± 1.3
      - Non-Fiction: 20.5 ± 2.5
      - Journal: 26.0 ± 1.4
      - Book: 36.4 ± 1.9

CONCLUSIONS

- Each class was tested at a different time of day and in a different classroom.
- Distractions were minimized but not able to be completely eliminated.
- There was a low response rate in the P1 class due to an exam being held shortly after the NDRT test administration.
- The NDRT exam exceeded class time for the P3 class.

REFERENCES