Assessing the Health Literacy and Numeracy in Rural Emergency Departments

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Introduction

Health literacy is an important determinant of health. The objective of this study was to quantifying health literacy and numeracy in the rural emergency department (ED) setting using a rapid, validated instrument.

Methods

- Patients were surveyed in three rural EDs (n=298).
- Patients >17yrs old fluent in English and with a CTAS score of ≥4 were included.
- Patients were asked to participate in a research study which would assist physicians with communication.
- A seven-word REALM-SF and four numeracy questions.
- Three social questions were also asked.

REALM-SF

1. Behaviour
2. Exercise
3. Menopause
4. Rectal
5. Antibiotics
6. Anemia
7. Jaundiced

Numeracy Questions

1. Imagine that we flip a fair coin 1000 times. What is your best guess about how many times the coin would come up heads in 1000 flips.
2. Imagine that we roll a fair, six-sided die 1000 times. Out of 1000 rolls, how many times do you think that die would come up even (2,4, or 6)?
3. In the BIG BUCKS LOTTERY, the chances of winning a $10.00 prize is 1%. What is your best guess about how many people would win a $10.00 prize if 1000 people each buy a single ticket to BIG BUCKS?
4. In the ACME PUBLISHING SWEEPSTAKES, the chance of winning a car is 1 in 1000. What percent of tickets to ACME PUBLISHING SWEEPSTAKES win a car? (%)

Results

- Average age was 53yrs (18-92)
- 54% were male
- 40% had at least one degree or diploma
- 76% were non-smokers
- 64% exercised regularly
- 96% wore a seatbelt
- It took 11 seconds to complete the REALM-SF and 74 seconds to answer the numeracy questions

Conclusion

This study quantifies the health literacy and numeracy of patients presenting to rural emergency departments. The results could be used to compare to other populations. In addition, it demonstrates a brief tool which can be used a rural ED. Health care professionals should consider health literacy and numeracy when communicating with their patients in the ED.

References