

Association between Reading Frequency and Free Books

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Abstract

Benefits of reading to children have been demonstrated by numerous studies. The Family Medical Center in Peoria, Illinois serves a low socioeconomic patient population whose children attend local schools that are struggling to meet state and national educational testing standards. The intent of this research project is to survey parents anonymously at well-child visits to determine if implementation of the Reach Out and Read program increases rates of parents reading to their children. This was done by collecting non-identifiable data regarding age of the child, socioeconomic status (using health insurance, zip code of residence and patient-identified race), frequency of parents reading to their children and number of books they have received from their doctor's office. The optional surveys were given out with free books to children aged 6 months to 5 years of age with the Reach Out and Read program starting in March 2016. The Methodist Foundation has provided funding for purchasing of the books to be given out through the Reach Out and Read program but is neither involved in nor aware of this research project. Data was collected for 10 months during which 143 survey responses were collected and 988 books were given out to children. Out of all surveys collected, seventy percent of caregivers read to their children less often than daily. The majority of caregivers had received one book or less at the time of the survey. Once two books had been received through the program, one hundred percent of caregivers read at least once weekly.

Introduction

It has been well established that reading aloud to children promotes early literacy skills and fosters language development¹⁻⁷. Research also indicates that families that are affected by poverty are much less likely to read to their children⁷. The Family Medical Center in Peoria, Illinois serves a high risk, low socioeconomic status patient population with schools struggling to reach educational standards. The purpose of this research study was to determine if implementing the Reach out and Read program could increase caregiver reading frequency rates as indicated by a self-reported study. If increased reading rates were shown, this would serve as a surrogate marker for improved language development of the studied patient population.

Methods

This project was an IRB approved prospective cohort study where caregivers of children aged 6 months to 5 years were given books along with an optional survey with questions regarding reading frequency. The books were administered during well child checks from February 2016 to December of 2016. In total, 988 books were given out and 143 surveys were collected at the time of the well child visit. The survey was original and anonymous and asked questions regarding the age of the child, reading rates, number of books received, insurance carrier, zip code and race. The survey was available in both English and Spanish. The books were age appropriate as determined by Reach out and Read, and available in both English and Spanish. The books were purchased through funding from The Methodist Foundation, who was unaware of and uninvolved with the research. At the end of the pre-determined collection period, data was submitted and analyzed for correlation between reading rates, number of books received, race, zip code and insurance status.

Figure 1 – How often do you read to your child?

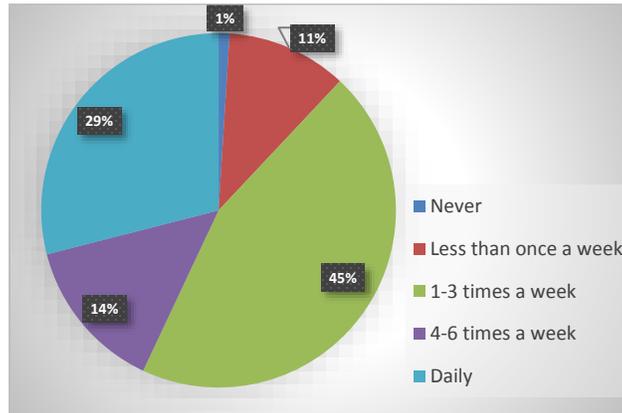


Figure 2 – How many books have you received from your doctor’s office?

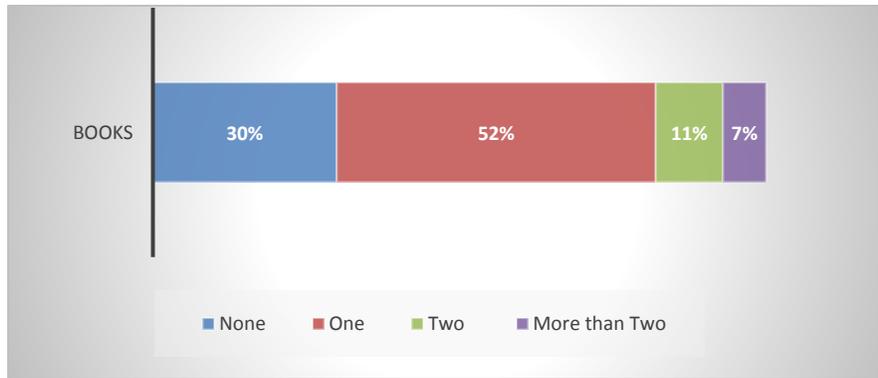


Figure 3 - How often do you read to your child and how many books have your received from your doctor’s office?

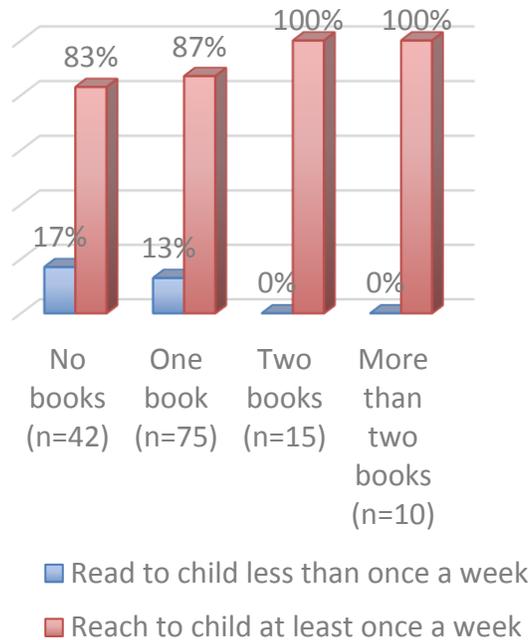


Figure 4

Optional Research Survey

The purpose of this research project is to evaluate frequency of reading to children in the family medicine clinic. This is a research project being conducted by Dr. Mack and Dr. McCarty. Your participation in this research study is voluntary. There is no penalty if you choose not to participate.

The study involves completing the following survey. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only. This research has been reviewed according to IRB procedures for research involving human subjects.

1. What is your child's age? ____ months ____ year(s)

2. What type of health insurance do you have?
____ Medicaid (medical card, public aid)
____ Private insurance
____ Other: _____

3. What is your zip code? _____

4. What is your race?
____ Black or African-American
____ White or Caucasian
____ Asian
____ Hispanic/Latino
____ Other: _____

5. How often do you read to your child?
____ Never
____ Less than once a week
____ 1-3 time a week
____ 4-6 times a week
____ Daily

6. How many books have you received from your doctor's office?
____ None (First book will be received today whether or not this survey is completed)
____ One
____ Two
____ More than two

Results

Twelve percent of surveyed caregivers read to their children less than once a week, forty-five percent read to their children one to three times weekly, fourteen percent read four to six times a week and twenty-nine percent read daily (Figure 1). The majority of surveys collected (82%) were regarding children that had received one book or less from the Reach out and Read program (Figure 2). Once two books had been received through the program, one-hundred percent of caregivers read at least once weekly with a P-value 0.14 (Figure 3). There was no statistically significant data regarding reading frequency as related to zip code, race and insurance carrier.

Limitations

Limitations include: small sample size, survey limitations, recall bias, free book bias, selection bias, and “that’s not my kid” bias. The small sample size resulted in a P-value of 0.14, which could be improved upon by repeating the research study at a future date. The survey could be improved by clarifying the question regarding the number of books already received through the Reach out and Read program. Caregivers may have difficulty recalling how frequently they read to their children, or may be influenced by receiving a free book. Selection bias may have been present as caregivers who value literacy may have self-selected to complete a survey. Finally, individuals completing the survey may not be the primary caregiver for the child, and thus may not have provided an accurate assessment of reading frequency.

Conclusions

Preliminary data suggests that increased numbers of books received at well child checks is associated with increased reading frequency.

References

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