

Background/Purpose

Background: A high quality discharge from the Children's Emergency Department (ED) educates caregivers about their child's treatment, care and prognosis. There is evidence that written / oral discharge instructions (WODI) may not be equally effective for all caregivers: studies have found limited comprehension of traditional discharge instructions among Spanish-speaking patients, which can lead to poor treatment compliance, inadequate follow-up and ED re-admission; all of which can contribute to disparities in health outcomes.¹ While recent evidence has supported the addition of video-discharge instructions (VDI) to improve caregiver knowledge among *English*-speaking caregivers of children being discharged from the Pediatric ED,² there is little evidence that VDI work equally well for Spanish-speaking caregivers.

Purpose: The purpose of this study was to test whether Spanish-language VDI, in addition to standard written / oral discharge instructions (WODI), result in improved knowledge and satisfaction among Spanish-speaking caregivers when compared to WODI alone.

Methods

This study was approved by the Institutional Review Board of the Inova Health System.

Design: Two-group consecutive sample, quasi-experimental, pretest posttest design

Setting: The study took place in a medium-sized suburban hospital, with a level III Trauma Center, which serves about 16,000 pediatric patients per year.

Sample: 150 caregivers (n=75 standard care group, n=75 intervention group).
Inclusion Criteria: Caregiver chose Spanish as their primary language, Child was between 1 month and 21 years of age, Initial complaint was fever, gastroenteritis, or a respiratory illness, Caregiver was > 18 years of age.

Study procedures: Spanish-language VDI were created for 3 diagnoses; *fever, gastroenteritis and bronchiolitis*, and loaded onto tablets in the patient rooms. During triage, caregivers complete a pre-test to assess knowledge about the child's diagnosis, treatment, illness duration and when to seek further medical care. Following evaluation and treatment they received either WODI or WODI+VDI and then complete a post-test survey.

The Tufts ACASI (Audio Computer-Assisted Self-Interview) System (<http://acasi.tufts.edu>) facilitated data collection. ACASI addressed literacy concerns because the caregiver could listen to the questions and answers in Spanish as the caregiver progressed through the survey. They had full control to replay questions, navigate forward and backward, change their answers and utilize skip patterns.

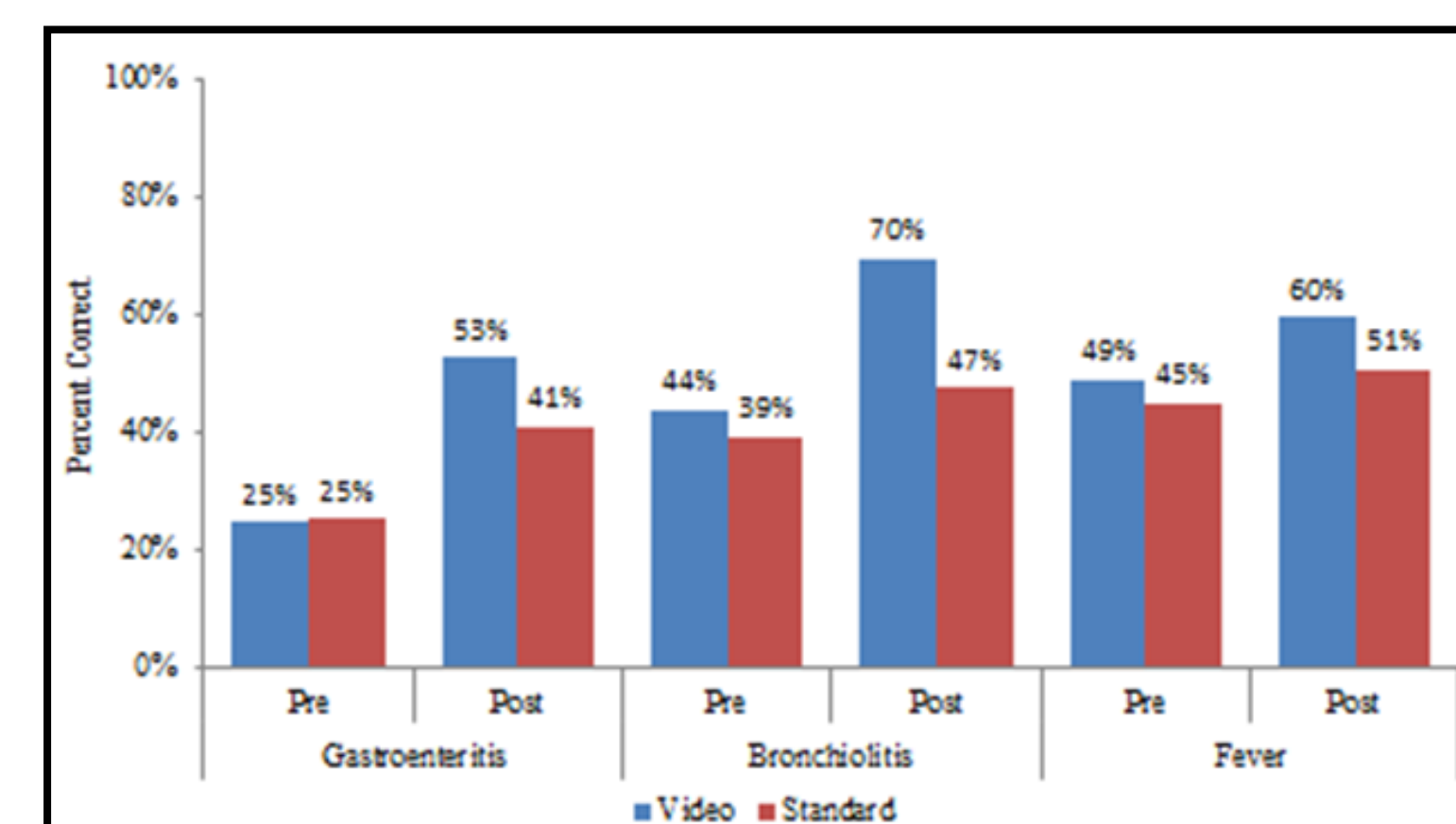
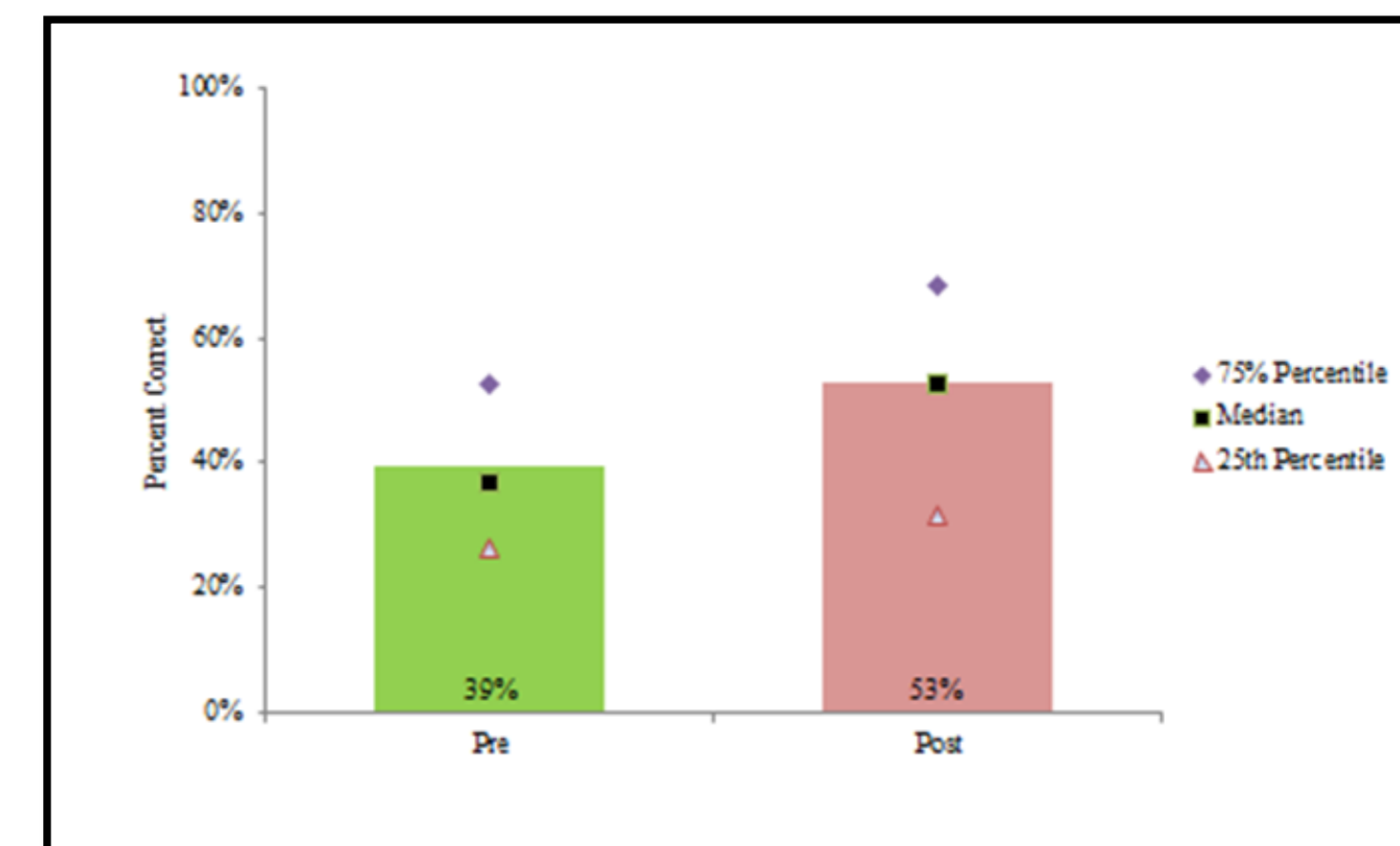


Results

Finding #1: For Spanish-speaking caregivers, VDI or WODI are effective at improving knowledge about their child's diagnosis, treatment, and illness duration.

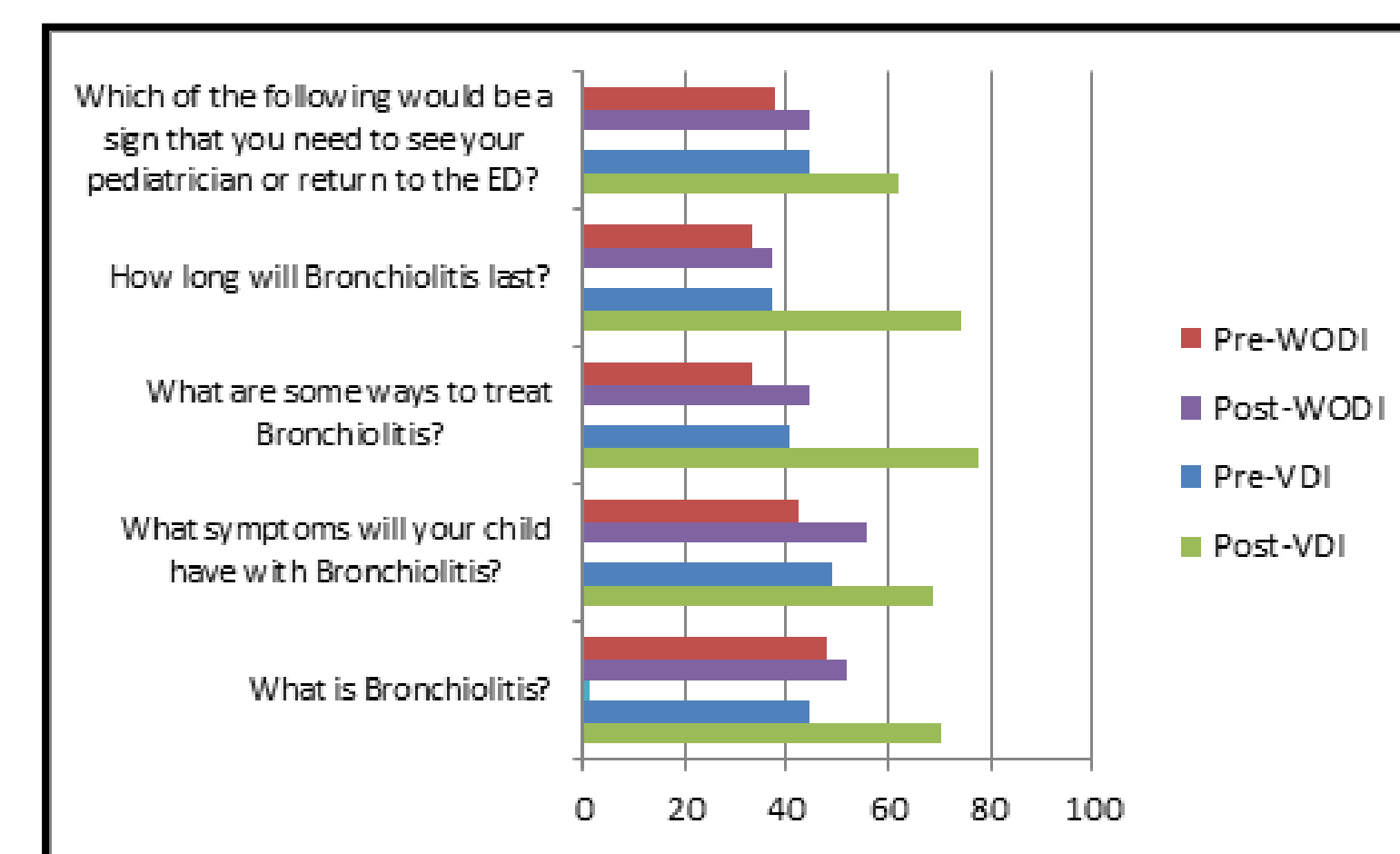
However, *adding Video Discharge Instructions to written/oral instructions is more effective at improving caregiver knowledge about diagnosis and treatment than providing WODI alone.*

Caregiver knowledge is presented using mean, standard deviation (SD), median, and percentiles (25th and 75th) for continuous data or frequency and percent for categorical data. Interquartile ranges (25th-75th percentile) were utilized to evaluate caregiver knowledge by group.



Finding #2: Stratified by group, VDI participant knowledge improved significantly compared to standard participants.

Caregiver knowledge significantly improved post-instructions for gastroenteritis, fever and bronchiolitis.



Caregiver knowledge was compared between the VDI and WODI + VDI group using nonparametric Wilcoxon rank sum tests. Gastroenteritis (54% post vs 24% pre, P=.001), fever (61% post vs 56% pre, P<.051), and bronchiolitis (61% post vs 37% pre, P<.003)

Finding #3: Regardless of discharge instruction format, *no significant difference* in caregiver satisfaction with the ED experience was observed.



Conclusions

- ✓ Discharge instructions by providers and nurses in the Pediatric Emergency Department improve knowledge whether they come in a video or standard written / oral format.
- ✓ However, results from this study demonstrate that when tailored to reflect diagnosis-specific education, VDI can improve Spanish-speaking caregiver knowledge about diagnoses and treatment *more* than just WODI alone.
- ✓ Nurses need to find creative ways to teach about *illness duration* and *when to seek further care* during discharge education with Spanish-speaking caregivers. These can impact follow-up care and readmission, but VDI did not significantly improve caregiver knowledge about these two topics.

Implications for Practice

- ✓ VDI should be integrated into nursing practice to standardize the ED discharge process for Spanish-speaking caregivers. When tailored to reflect diagnosis-specific education VDI can improve caregiver knowledge more than just WODI alone.
- ✓ VDI can act as an adjunct to nurse-provided WODI with an interpreter for Spanish-speaking families. Caregivers can consume discharge education at their own pace during their ED visit & prepare questions, which can potentially improve treatment compliance, follow-up and reduce ER re-admissions.
- ✓ While VDI may not improve caregiver satisfaction, they provide an alternative learning option for visual and auditory learners. They are an important education tool, and can be adjusted for an individual site and community.

References

1. AHRQ (2014). Johns Hopkins University, Armstrong Institute for Patient Safety and Quality. Improving the emergency department discharge process: environmental scan report. Rockville, MD: Agency for Healthcare Research and Quality; December 2014. AHRQ Publication No. 14(15)-0067-EF.
2. Wood, E.B., Harrison, G., McReynolds, S.L., Nassr, L., Presgrave, K., Rovelli, E., Stinson, S.B., Trickey, A., Charles, E., McCabe, B.J., (2017). Effectiveness of Video Discharge Instructions in the Pediatric Emergency Department: A Nurse-led Evidence-Based Practice Project. *Journal of Emergency Nursing*. 43 (4):316-32.
3. ACASI (Audio Computer Assisted Self-Interview) Platform: <http://acasi.tufts.edu/>

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