



## Reductions in Parent Interest in Receiving Antibiotics following a 90-Second Video Intervention in Outpatient Pediatric Clinics

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**Objectives** To assess the impact of a 90-second animated video on parents' interest in receiving an antibiotic for their child.

**Study design** This pre-post test study enrolled English and Spanish speaking parents (n = 1051) of children ages 1-5 years presenting with acute respiratory tract infection symptoms. Before meeting with their provider, parents rated their interest in receiving an antibiotic for their child, answered 6 true/false antibiotic knowledge questions, viewed the video, and then rated their antibiotic interest again. Parents rated their interest in receiving an antibiotic using a visual analogue scale ranging from 0 to 100, with 0 being "I definitely do not want an antibiotic," 50 "Neutral," and 100 "I absolutely want an antibiotic."

**Results** Parents were 84% female, with a mean age of 32 ± 6.0, 26.0% had a high school education or less, 15% were black, and 19% were Hispanic. After watching the video, parents' average antibiotic interest ratings decreased by 10 points (mean, 57.0 ± 20 to M ± 21;  $P < .0001$ ). Among parents with the highest initial antibiotic interest ratings ( $\geq 60$ ), even greater decreases were observed (83.0 ± 12.0 to 63.4 ± 22;  $P < .0001$ ) with more than one-half (52%) rating their interest in the low or neutral ranges after watching the video.

**Conclusions** A 90-second video can decrease parents' interest in receiving antibiotics, especially among those with higher baseline interest. This scalable intervention could be used in a variety of settings to reduce parents' interest in receiving antibiotics. (*J Pediatr* 2020;225:138-45).

**Trial Registration** [ClinicalTrials.gov](https://clinicaltrials.gov): NCT03037112.

Most US antibiotic prescribing occurs in the outpatient setting where children with acute respiratory tract infections (ARTIs) receive more than 34 million antibiotic prescriptions annually.<sup>1,2</sup> Nearly one-third (29%) of these prescriptions are inappropriate because they are prescribed to treat a viral illness or because the antibiotic is unnecessarily broad.<sup>3</sup> Parents' overall interest in receiving antibiotics has been decreasing.<sup>4</sup> Nevertheless, one of the most commonly cited reasons for inappropriate prescribing by providers continues to be perceived pressure from parents who want them.<sup>5-7</sup> This perceived pressure matters; studies have demonstrated that, when providers perceive that a parent expects to receive an antibiotic, they are more likely to prescribe one.<sup>8,9</sup>

Despite the ascribed relevance by providers, perceived pressure from parents who want antibiotics has seldom been the stated target of interventions efforts. Rather, interventions to decrease inappropriate antibiotic prescribing typically have focused on providing education to increase antibiotic knowledge among providers and/or parents.<sup>10-12</sup> Many have been successful in increasing knowledge about antibiotics, with efforts that simultaneously intervene on parents and providers and target parent-provider communication evidencing the strongest results.<sup>10,11,13,14</sup> Pressure from parents who are interested in receiving an antibiotic for their child might be a key aspect of parent-provider communication, but no published intervention study has directly targeted and measured parents' level of interest. Over the past 2 decades, only 3 studies have reported on variables similar to parents' interest in receiving antibiotics (ie, expectations for an antibiotic or likelihood of asking for an antibiotic) and, although all demonstrated modest improvements, none of these variables were the main focus of the intervention or assessment.<sup>15-17</sup> Taken together, these studies provide support for the notion that parent attitudes that relate to their interest in receiving antibiotics can be improved with brief clinic-based interventions.

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ARTI Acute respiratory tract infection

This unsettled question of whether and how parents' interest in receiving antibiotics can be decreased is central to any discussion with providers about reducing inappropriate prescribing. Brief, feasible, and efficacious strategies to measure and decrease parents' interest are likely to be key components of any effective intervention to decrease inappropriate antibiotic prescribing. In this study, we investigated the impact of a 90-second animated video promoting cautious antibiotic use on parents' ratings of their interest in receiving an antibiotic for their child. We hypothesized that parents' interest in receiving an antibiotic would be reduced after viewing the video.

## Methods

Data for this study were collected as part of a randomized controlled trial comparing the effectiveness of 2 interventions aimed at decreasing unnecessary antibiotic prescribing by improving parent-provider communication in 2 ambulatory pediatric clinics (1 private practice and 1 academic) in the US Midwest (full details available elsewhere<sup>5</sup>). Data reported here were collected between March 2017 and April 2018. Ethical approval was obtained from the Children's Mercy Hospital Pediatric Institutional Review Board (#16060466).

### Procedure

Study staff identified potentially eligible participants by pre-screening all appointments. All potentially eligible parents or legal guardians (henceforth referred to as parents) were provided a study flyer upon check-in and approached in the waiting room or examination room. If interested, parents were provided with a short synopsis of the study and offered eligibility screening. Eligible parents were asked to provide written informed consent and were enrolled. If more than 1 caregiver was present, they were asked to designate 1 person to independently complete the informed consent and all assessments. Once enrolled, parents completed a 5-minute pre-visit survey that included rating their interest in receiving an antibiotic for their child, answering 6 true/false antibiotic knowledge questions, viewing a 90-second video, and rating their interest in receiving an antibiotic again. All parents then completed a visit with a provider trained in 1 of 2 interventions. Immediately after the provider visit, parents completed a 3-minute postvisit survey. Two weeks later, parents completed a follow-up survey via telephone. All surveys were administered using the Research Electronic Data Capture electronic data capture system<sup>18</sup> on computer tablets. Parents were provided with \$10 per completed survey in recognition of their time and effort.

### Video

The educational video was a professionally produced, 90-second cartoon that tells the story of a toddler named Adrian with ARTI symptoms (Figure 1). His parents take him to see his provider who listens to their concerns, examines Adrian, and diagnoses him with a cold. Mom asks if antibiotics would help and the provider explains that luckily Adrian will not

need antibiotics this time because they only work on the very small number of infections caused by bacteria. The verbal content at this point is reinforced by visual images of Adrian transforming into a superhero who uses his laser gun to shoot at bacteria and viruses flying toward him. The provider explains that not having to use antibiotics is great news because they can cause side effects and their inappropriate use leads to the development of resistance. The provider also explains that Adrian's body can fight off the virus on its own and the video reinforces this idea by showing Adrian as a little boy again taking a superhero stance. The provider then shares comfort care measures, an estimate of illness duration, and triggers for reconsultation. The video ends a few days later with a playful Adrian who has recovered. The video uses insights from behavioral economics to improve the effectiveness of the messaging. Specifically, it goes beyond a pure information/education campaign by using gain-framed messaging to emphasize the benefits of not using antibiotics (which has been shown to be effective in other health behaviors).<sup>19,20</sup> It also highlights aspects of the consultation that have been documented to increase parents' visit satisfaction (regardless of parents' interest in an antibiotic or whether one is prescribed).<sup>5,11,21-24</sup> The script and cartoon images were crafted in collaboration with English- and Spanish-speaking parents and pilot tested with providers, parents, and children to ensure clarity, accuracy, and the widest possible appeal and potential for identification with the characters and images.

### Participants

Parents of children between 1-5 years of age who presented with symptoms of ARTIs (eg, cough, congestion, sore throat, earache) were eligible to participate if they were fluent in English or Spanish and had not previously participated in the study. Parents of children who had taken antibiotics within the last 30 days, had a concurrent probable nonrespiratory bacterial infection (eg, urinary tract infection, soft tissue infection), had any chronic immunocompromising conditions that would complicate decision making around antibiotic use, or who required hospitalization during the visit were not eligible.

### Measures

We engaged parent and provider stakeholders in the selection and adaptation of measures. Final draft measures were pilot tested using cognitive debriefing strategies with parents from the target population. All measures were translated into Spanish using an established 9-step process that included pilot testing and cognitive debriefing with exclusive Spanish speakers.<sup>25,26</sup>

### Primary Outcomes

**Interest in Receiving an Antibiotic.** Parents were asked "How interested are you in receiving an antibiotic prescription for your child today?" before and immediately after viewing the video. Parents rated their interest in receiving



**Figure 1.** Example stills from the 90-second animated educational video.

an antibiotic using a radio button on a visual analogue scale ranging from 0 to 100, with 0 being labeled “I definitely do not want an antibiotic,” 50 “Neutral,” and 100 “I absolutely want an antibiotic.” Ratings were categorized as low ( $\leq 39$ ), neutral (40-59), or high ( $\geq 60$ ).

**Antibiotic Knowledge.** Parents were presented with 6 statements about antibiotics and asked to indicate whether each was true, false, or don’t know. Sample items are: “Common colds are cured more quickly by antibiotics” and “Antibiotics are needed to treat green nasal discharge.” Items were scored as correct or incorrect (don’t know scored as incorrect) and categorized by the number of correct items (low,  $\leq 3$ ; moderate, 4-5; high, 6).

**Parent Satisfaction.** Immediately after the visit, parents were asked to indicate their satisfaction with the communication with their provider and the overall visit using a 5-point Likert-type response scale ranging from very dissatisfied to very satisfied. During the 2-week follow-up call, parents rated

their level of satisfaction with their participation in the research study on a 4-point Likert-type response scale ranging from not satisfied at all to very satisfied. Parents were also asked “How helpful did you find the Adrian video?” with a 4-point response scale ranging from not at all helpful to very helpful. After each satisfaction question, parents were given the opportunity to add free-response, qualitative comments.

#### Demographics

Parents’ age, sex, ethnicity, and race (consistent with US census categories<sup>27</sup>), education level, child age and ambulatory pediatric clinic type (ie, private vs academic) were collected via self-report and chart review.

#### Statistical Analyses

Demographic data were summarized to describe the sample. To examine our hypothesis that viewing the video would result in lower parent antibiotic interest, we used a *t* tests to compare mean antibiotic interest from prevideo to

postvideo in the full sample. To determine if any observed difference was consistent across parents with varying levels of prevideo antibiotic interest, we then examined the pattern of change in prevideo vs postvideo interest scores among parents with low, neutral, or high initial antibiotic interest. Because our primary goal is to develop a feasible intervention that encourages all parents with high initial interest to shift to more neutral levels of interest that are more conducive to effective parent-provider communication, supplemental analyses focused on understanding the effect of the video among identifiable subgroups of parents with high prevideo antibiotic interest. First, we used bivariate logistic regressions to determine if any of the baseline parent characteristics previously established in the literature as being associated with having high interest in or desire for antibiotics were associated with high initial interest in this sample.<sup>28</sup> These variables included parent sex, age (dichotomized as <25 years vs ≥25 years), preferred language for study, ethnicity, education (high school diploma or less vs higher education), and baseline antibiotic knowledge (low vs medium or high). We then used *t* tests to compare mean antibiotic interest scores from prevideo to postvideo intervention among parents in each risk group. To determine if parents who reported any reduction in antibiotic interest were or were not equally satisfied with the communication, overall visit, and/or their participation in the study as parents who did not change their level of interest, we applied  $\chi^2$  tests to compare level of satisfaction between parents who reported reduced antibiotic interest after viewing the video and those that did not. Analyses were conducted using Stata version 15.<sup>29</sup>

All qualitative responses were transcribed verbatim. Guided by the framework method for qualitative analysis, we organized comments according to participants' responses to the question, "How helpful did you find the Adrian video?"<sup>30</sup> Two independent study staff used content analysis to create categories of comments with similar themes for each response option (eg, not at all helpful to very helpful). Through comparison and debriefing, content was synthesized under overarching themes.

## Results

Parents' demographic characteristics are displayed in **Table I**. Parents correctly answered an average of  $4.11 \pm 1.7$  antibiotic knowledge questions, with 24.1% answering all 6 questions correctly and 31.6% answering 3 or fewer questions correctly. Parents initial ratings of interest in receiving an antibiotic were generally neutral (61.3%) or low (10.4%), with just under one-third (28.3%) reporting high interest.

After watching the video, parents' ratings of interest in receiving antibiotics did decrease by an average of 10 points (mean,  $7.0 \pm 20$  to mean,  $47.5 \pm 21$ ) representing a significant decrease in interest ( $P < .0001$ ) (**Figure 2**). This pattern of decreased average antibiotic interest after watching the video was observed across all parent groups, including those who reported low or neutral prevideo

**Table I. Demographic characteristics of parent sample (n = 1051)**

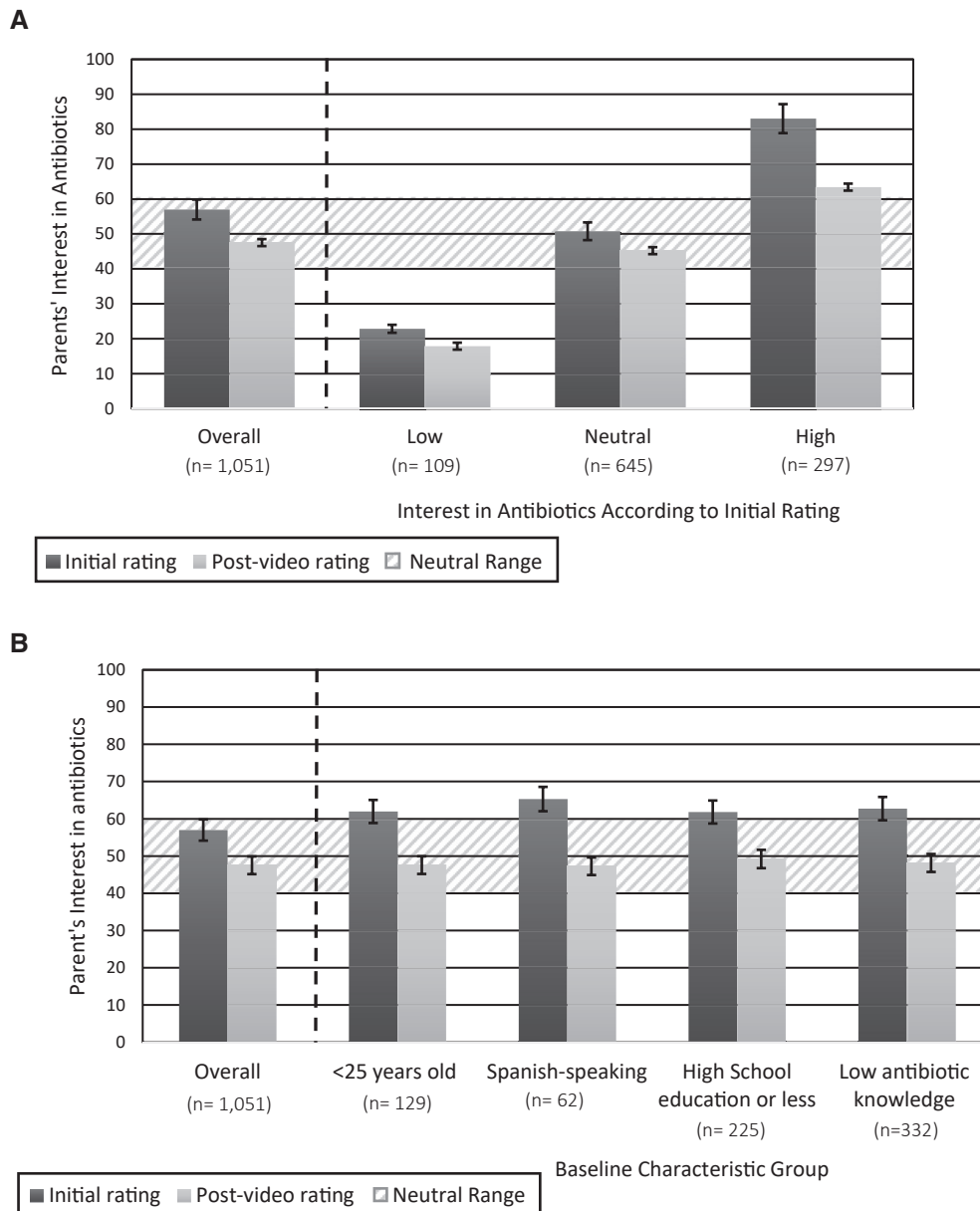
Characteristic	Frequency (%)
Clinic attended	
Academic medical facility	200 (19.0)
Private practice	821 (81.0)
Sex	
Male	171 (16.3)
Female	880 (83.8)
Age, y	
18-24	129 (12.3)
25-34	604 (57.5)
35-44	290 (27.6)
≥45	28 (2.7)
Preferred language	
English	989 (94.1)
Spanish	62 (5.9)
Ethnicity	
Non-Hispanic	848 (80.7)
Hispanic	201 (19.1)
Unknown/declined	2 (0.2)
Race	
Asian	13 (1.2)
Black/African American	154 (14.7)
White	798 (75.9)
Other/mixed	52 (4.9)
Unknown/declined	34 (3.2)
Education	
High school diploma or less	273 (26.0)
Some college	375 (36.7)
Undergraduate degree	278 (26.5)
Graduate degree	121 (11.5)
Other/declined	4 (0.3)

interest. Among parents with high prevideo antibiotic interest ratings (>60), average postvideo ratings dropped almost 20 points (**Figure 2**, A; mean,  $83.0 \pm 12$  to mean,  $63.4 \pm 22$ ;  $P < .0001$ ). Importantly, more than one-half (52%) of these parents rated their interest in the low or neutral ranges after watching the video.

### Supplemental Analyses

Bivariate logistic regressions revealed that parents under the age of 25 (vs ≥25; OR, 1.94; 95% CI, 1.33-2.83), Spanish-speaking parents (vs English speaking; OR, 1.91; 95% CI, 1.12-3.23), parents with a high school education or less (vs higher education; OR, 1.95; 95% CI, 1.46-2.62), and parents with low baseline antibiotic knowledge (vs higher knowledge; OR, 2.31; 95% CI, 1.74-3.06) were all more likely to endorse high prevideo antibiotic interest (**Figure 2**, B). Average postvideo antibiotic interest ratings among all risk groups (ie, younger parents, Spanish-speaking parents, those with lower education, and lower baseline antibiotic knowledge) evidenced reductions to within the neutral range after viewing the video (**Figure 2**, B). Younger parents decreased their antibiotic desires by an average of 15 points (mean,  $61.6 \pm 20.4$  to mean,  $46.9 \pm 19.7$ ;  $P < .0001$ ), Spanish-speaking parents by an average of 18 points (mean,  $65.7 \pm 21.0$  to mean,  $47.3 \pm 27.1$ ;  $P < .0001$ ), parents with a high school education or less by an average of 12 points





**Figure 2.** Parents' initial vs postvideo antibiotic interest ratings. **A**, Overall and by initial group.  $P < .0001$  for all comparisons. Interest in antibiotics ratings were categorized as low ( $\leq 39$ ), neutral (40-59), or high ( $\geq 60$ ). **B**, Overall and by nonmutually exclusive baseline characteristics groups.  $P < .0001$  for all comparisons.

(mean,  $61.8 \pm 1.7$  to mean,  $49.2 \pm 22.8$ ;  $P < .0001$ ), and parents with low baseline antibiotic knowledge by an average of 14 points (mean,  $62.7 \pm 1.2$  to mean,  $48.1 \pm 23.2$ ;  $P < .0001$ ).

Parent ratings were highly positive across all of the satisfaction measures. Parents who reported a reduction in their antibiotic interest and those who did not indicated that they were similarly very satisfied with their providers' communication (91.8% and 92.3%, respectively), with their overall visit (91.1% and 92.1%, respectively), and with their participation in the study (93.6% and 92.1%, respectively).

Among parents who completed the 2-week follow-up ( $n = 915$ ), we observed a stepwise reduction in average antibiotic interest among parents who rated the video as not at all helpful to very helpful, with parents who rated the video as very helpful evidencing the largest decline from before (mean,  $58.4 \pm 20.3$ ) to after seeing the video (mean,  $47.0 \pm 22.1$ ;  $P < .001$ , **Table II** [available at [www.jpeds.com](http://www.jpeds.com)]). Parents in the high-risk groups of Spanish speakers (76.4% vs English 56.0%;  $P = .006$ ), less education (68.9% vs higher 53.5%;  $P < .001$ ), and lower baseline antibiotic knowledge (65.3% vs higher 47.4%;  $P < .001$ ) were all

significantly more likely to rate the video as very helpful. The same pattern was observed for the younger risk group (65.3% vs older parents 56.3%;  $P = .104$ ), although this difference was not found to be statistically significant.

To better understand the validity of the antibiotic interest measure itself, we conducted additional analyses exploring the relationship between postvideo antibiotic interest ratings and the likelihood of receiving an antibiotic and visit satisfaction. We found that interest ratings were significantly higher among parents who ultimately received an antibiotic for their child (mean,  $50.7 \pm 20.9$ ) than parents who did not receive an antibiotic (mean,  $46.5 \pm 20.8$ ;  $P = .004$ ). We also found that the proportion of parents who reported being very satisfied with their visit varied by their postvideo antibiotic interest rating and whether or not they ultimately received an antibiotic. Specifically, as expected satisfaction among parents with low and neutral antibiotic interest was not related to whether or not they received an antibiotic. Whereas for parents with high interest, satisfaction was significantly related to whether they received an antibiotic (92.9% for those receiving an antibiotic vs 84.3% for those who did not;  $P = .05$ ; absolute differences 8.57% [95% CI, 1.18-15.96]).

Qualitative comments about the video were offered by 40% ( $n = 367$ ) of parents who completed the 2-week follow-up and fell into 1 of 3 main categories: (1) increased antibiotic knowledge, which included comments about gaining antibiotic knowledge directly from the video with the vast majority coming from parents who found video very helpful; (2) contained familiar information, with the majority indicating that the video contained information they already knew, although many were also parents who found the video at least somewhat helpful and many of those added that it was a good refresher or would be helpful for others; and (3) audience/setting-appropriate, with most indicating that they appreciated the concise and appropriate for both children and parents format of the video. **Table III** presents an overview of the themes across parents' ratings of the video's helpfulness as well as representative quotes.

## Discussion

Our findings indicate that a brief and feasible intervention significantly decreased parents' interest in receiving an antibiotic by an average of 10 points (on 100-point scale) among all parents and almost double that among parents who reported the greatest interest in antibiotics at baseline. More than one-half of the parents with the highest initial antibiotic ratings indicated that their interest had shifted to the low or neutral range after watching the 90-second video. Prior research has established that providers report the most concern about counseling parents who strongly desire antibiotics and hope that parents' antibiotic interest is low to neutral going into a visit.<sup>5-7</sup> An efficacious intervention that helps parents to become more open to the idea that an antibiotic might not be helpful for their sick child will

**Table III. Parents' rating of video helpfulness and themes of qualitative comments**

		Themes		
"How helpful did you find the Adrian video?"	Comments provided	Increased antibiotic knowledge (frequency)	Contained familiar information (frequency)	Audience/setting appropriate (frequency)
Very helpful 524 (57%)	204 (39%)	"it broke down the difference between bacteria that causes infections where a child would actually need antibiotics." - (English-speaking mother, age 32) "I thought she needed antibiotics, but the video taught me she didn't with a virus." - (Spanish-speaking mother, age 36) (82)	"All review for me, but for a lot of people it would be very informative." - (English-speaking mother, age 30) (85)	"Simple and quick. Most people don't have a long attention span. Simple is better in healthcare." - (English-speaking mother, age 36) "Simplicity of video was helpful. Very to the point. Had stats and facts. Evidence based." - (English-speaking mother, age 23) (31)
Mostly helpful 223 (24%)	74 (33%)	"It made me think that not always we should use antibiotics to help the child feel better." - (Spanish-speaking mother, age 37) (19)	"The video and study helped verified what my wife and I already knew about antibiotics." - (English-speaking father, age 37) (44)	"Video was short and sweet." - (English speaking-father, age 42) (11)
Somewhat helpful 141 (15%)	70 (50%)	"It was helpful to know when an antibiotic was needed." - (English-speaking mother, age 29) (2)	"I feel that I was pretty educated on the subject before seeing the video, but maybe for someone who did not know about the use of antibiotics, it would be easy to understand and learn." - (English-speaking mother, age 30) (63)	"It was straight forward." - (English-speaking mother, age 36) (1)

Among the 27 participants who rated the video as not at all helpful, 9 provided comments that were consistent with the theme contained familiar information. Other comments included not watching ( $n = 1$ ) or not remembering watching the video ( $n = 8$ ) and liking the video more than the brochure ( $n = 1$ ). Values are number (%) or (frequency).

likely be most conducive to high-quality parent-provider communication where providers do not feel pressured to prescribe antibiotics and parents are more open to providers' recommendations. Although not the only factor influencing inappropriate prescribing, interventions that positively impact the quality of parent-provider communication have repeatedly evidenced the greatest impact on rates of inappropriate prescribing.<sup>11-17</sup>

Consistent with prior research,<sup>7</sup> parents who were younger, Spanish speaking, and had less education and a lower baseline antibiotic knowledge were more likely to report greater interest in receiving an antibiotic before viewing the video. After watching the video, average parent antibiotic interest ratings in all of these groups evidenced significant decreases to within the neutral range.

The video's impact on reducing initial interest in receiving an antibiotic may have been due to several factors. For parents with lower education and baseline antibiotic knowledge, it may be that the video provided new information or clarified conflicting messages about antibiotics that parents often report receiving.<sup>31</sup> The use of behavioral economics strategies in the messaging, for example, gain framing, may have made the relevant information highly salient and more acceptable to parents. Closing such gaps in health literacy can improve parents ability to understand and contribute to the discussion with their provider of what is best for their child (ie, shared decision making).<sup>32</sup> Because the video was shown in the clinic, parents may have also perceived it to be a proxy for their upcoming interaction with their provider. After framing provider recommendations for antibiotics as rare, the video may have set a lower expectation of receiving antibiotics, prompting parents to lower their interest in receiving one to be more concordant with what they believe their provider would recommend. Parents may have also gained additional confidence in lowering their antibiotic interest after viewing the positive outcomes of the consultation presented in the video in which antibiotics were not prescribed. Regardless of the mechanism(s), decreasing parents' interest in receiving an antibiotic and providers knowing that parents have just seen a video that lowers parents' interest in receiving an antibiotic puts parents and providers in the best possible position for shared decision making to occur.

Feedback on the video was positive with parents reporting that it was highly informative, easy to understand, entertaining, and reassuring. Findings from the entire sample indicated that the more helpful parents found the video, the greater their decrease in average antibiotic interest. Similarly, a greater proportion of parents in the high-risk parent groups found the video very helpful as compared with their counterparts. These findings indicate that the information provided in the video was successful in reaching the parents who needed it most and seems to have had the intended impact. Parents' qualitative responses support these findings with many parents reporting that they learned important information from the video. Even parents who reported being familiar with the video's content still felt that it was a good

reminder and would be helpful to others who didn't know as much. Parents suggested that the video could be shown on televisions in clinic waiting rooms or played on computer screens after parents and children are settled into their examination room. Presenting the video to parents of children with ARTI symptoms just before they see their provider is likely the most desirable delivery mode, but additional studies of the manner, time, and place of exposure to the video will be critical to maximizing its impact on shared decision making and prescribing behavior. Additional research on the facilitators and barriers to roll out in different types of outpatient clinics is also needed to develop efficient and widespread scale up.

Parents' interest in obtaining an antibiotic for their child seems to be an important target, because it was related to the likelihood of receiving an antibiotic and to visit satisfaction among parents who retained high interest after watching the video. This could be because parents recognize symptoms they have seen in the past when their child has required an antibiotic (eg, acute otitis media), but it may also be a reflection of the influence of high parental desire for antibiotics on the parent-provider interaction.

Our study has limitations. Although parents lowered their rating of antibiotic interest after watching the video, our pre-post study design did not allow us to examine how this may have affected the subsequent clinical interaction or the likelihood of receiving an antibiotic. The lack of a control group that was not exposed to the video also allows for the possibility that the observed reduction among parents with high pre-video antibiotic interest could be a function of regression to the mean rather than a true intervention effect. Although possible, the fact that parents with low and neutral pre-video antibiotic interest also evidence decreases rather than increases toward the overall group mean does not support regression to the mean as a viable explanation for our findings. Further, because of the presence of a research assistant and the framing of antibiotics in the video, it is possible that social desirability influenced some of the decreases in antibiotic interest. Finally, we only measured immediate changes in parents' interest in receiving an antibiotic for their child that day. Although this was most central to the parent-provider interaction we were targeting, we do not know if the interest decreases observed were maintained over time.

Our study establishes the feasibility, acceptability and efficacy of an intervention specifically focused on reducing parents' interest in receiving an antibiotic for their child with ARTI symptoms. This feasible and scalable intervention could be used in a variety of settings to reduce parents' interest in receiving antibiotics which may facilitate better patient-provider communication that can ultimately lead to better prescribing practices. ■

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**Table II.** Parents' average antibiotic interest for each video helpfulness response option.

Parent video ratings	Parent Antibiotic Interest				Paired <i>t</i> test	<i>P</i> value
	Before the video		After the video			
	Mean	SD	Mean	SD		
Not at all helpful	46.7	16.4	44.6	16.8	1.4	.16
Somewhat helpful	56.3	18.1	51.2	18.4	4.7	<.001
Mostly helpful	53.6	19.2	46.8	20.7	6.7	<.001
Very helpful	58.4	20.3	47.0	22.1	14.1	<.001