



Does an Educational Video on HPV Vaccine Influence Parents' Decision to Vaccinate in a Family Practice Office?

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May 25, 2016

**2016 National Conference on Immunization
Coalitions and Partnerships**

Problem

- There are 79 million infected with HPV in United States (1) with 14 million newly diagnosed cases yearly (2).
- HPV vaccine has been available since 2006 for females and 2009 for males (1).
- HPV vaccine ≥ 1 -dose rates remain low(1):

	Female %	Male %
National	57	35
Indiana	54	18
Clay County	32	11
Office	35	12

- Challenge for providers is to determine the best modality to educate parents.

Objectives

- Implement an HPV educational video as the means to educate parents.
- Assess parents' attitudes about HPV vaccine.
- Increase parents' knowledge about HPV vaccine.
- Increase parents' intent to vaccinate with HPV vaccine.
- Increase HPV vaccination rates in a family practice office.

Evidence

- Parents who vaccinated with HPV vaccine had positive attitudes and increased knowledge about HPV vaccine (4);(5);(6);(7).
- Parents' decision to vaccinate with HPV vaccine is based on providers' recommendations (5); (8); (9); (10).
- Providers hesitate to engage in HPV vaccine discussions based on time constraints (5) and providers believe they cannot change parents' minds (11).
- Video is reported to be superior to other educational modalities (7); (12);(13).

Methods



Population

- Participants who have children ages 9-17 who have not received the HPV vaccine.
- Participants must speak and read English.



Research Design

- Quantitative, Pre-test/Post-test

Methods cont'd



Instruments:

- **Demographic Survey**
- **Pre-Post Video Questionnaire**
 - 10 Attitude Questions: Taken from Carolina HPV Immunization Attitudes & Beliefs Scale (CHIAS) (8).
 - 9 Knowledge Questions: Taken from Caregivers Survey used in Carolina HPV Immunization Measurement and Evaluation (CHIME) Project (4).
 - 1 Intent Question



Educational HPV Vaccine video: Used with permission from American Sexual Health Association (ASHA)

Outcomes



Sample Demographics (N=46)

- **Relationship:** 80% Mothers, 13% Fathers, 7% Guardian
- **Age:** Mean = 41 years; Range 29-64 years
- **Marital Status:** 67% Married; 16%; Widowed 4%; Divorced; 13% Single
- **Education:** 11% No degree; 44% High School; 8% Some College; 8% Trade Degree; 24% College Graduates; 5% Post College Degree
- **Annual Family Income:** 24% < \$25,000; 36% = \$25,000-\$49,999; 24% = \$50,000-\$74,999; 16% > \$75,000
- **Ethnic/Cultural:** 98% Caucasian; 2% African American
- **Employment:** 58% Employed; 42% Unemployed
- **Religion Affiliation :** 63% Religion 37% No Religion

Outcomes Cont'd

- **Attitudes Domain:** There was a significant decrease in post-video scores ($M=20.3$, $SD=5.1$) in comparison to pre-video scores ($M=23.7$, $SD=5.3$); ($t(39)=6.16$, $p=.000$). (Improved attitude = decreased test scores)
- **Knowledge Domain:** There was a significant increase in knowledge perception post-video ($M=7.2$, $SD=1.1$) when compared to pre-video ($M=6.3$, $SD=1.2$); ($t(36)=5.9$, $p=.000$).

Outcomes cont'd

- **Intent to Vaccinate:** Clinically meaningful changes were noted in intent to vaccinate with 14/45 (31%) of parents increasing their intent to vaccinate after watching the educational video.
- **HPV Vaccination Rates in Office**
 - Female Vaccination Rates (N=74) increased from 35% (2015) to 41% (2016).
 - Males Vaccination Rates (N=57) increased from 12% (2015) to 21% (2016).

Conclusions

- **The educational video on HPV vaccine:**
 - Improved parents' attitudes
 - Increased parents' knowledge
 - Increased parents' intent to vaccinate
 - Increased vaccination rates in the family practice office

Conclusions cont'd



Facilitators:

- Educational video provided effective information in a short amount of time.
- Educational video can be viewed prior to the provider entering the exam room thus facilitating time.
- Educational video is an easy modality for staff to provide to parents.

Conclusions cont'd



Barriers:

- Providers/staff still need to be confident to discuss HPV/HPV vaccine with patients.
- Providers/staff may be reluctant to use portable electronics as an educational modality.
- Educational video may not be the best modality for all parents to learn about HPV/HPV vaccine

References

1. Center for Disease and Prevention, (2014). Morbidity and mortality (MMWR): National, regional, state, and selected local area vaccination coverage among adolescents aged 13–17 years – National immunization survey–Teen (NIS-Teen), United States, 2013, 63(29); 625-3.
2. Crosbie, E., Einstein, M., Franceschi, S., & Kitchner, H. (2013). Human papillomavirus and cervical cancer. *Lancet*, 382, 889-899.
3. Allen, J., D., Othus, M., K., Shelton, R.C., Li, Y., Norman, N., Tom, L., & del Carmen, M. G. (2010). Parental decision making about HPV vaccine. *Cancer Epidemiologic Biomarkers Prevention*, 19(9), 2187-2198. doi: 10.1158/1055-9965.EPI-10-0217.
4. Getrich, C., M., Broidy, L., M., Kleymann, E., Helitzer, D., L., Kong, A., S., & Sussman, L. (2014). Different models of hpv vaccine decision making among adolescent girls, parents and health-care clinicians in New Mexico. *Ethnicity & Health*, 19(1), 47-63.

References cont'

5. Okoronkwo, C., Sieswerda, L. E., Cooper, R., Binette, D., Todd, M. (2012). Parental consent to HPV vaccination for their daughters: The effects of knowledge and attitudes. *The Canadian Journal of Human Sexuality*, 21(3-4), 117-126.
6. Reiter, P. L., Stubbs, B., Panozzo, C. A. (2011). HPV and HPV vaccine education intervention: Effects on parents, healthcare staff, and school staff. *Cancer Epidemiology, Biomarkers & Prevention*, 20, 2354-2361. doi: 10.1158/1055-9965.EPI-11-0562
7. Dempsey, A. F., Abraham, L. M., Dalton, V., Ruffin, M. (2009). Understanding the reasons why mothers do or do not have their adolescent daughters vaccinated against human papillomavirus. *Annals of Epidemiology*, 19(8), 531-538. doi:10.1016/j.annepidem.2009.03.011

References cont'd

8. Hughes, C. C., Jones, A. L., Feemster, K. A., & Fiks, A. G. (2011). HPV vaccine decision making in pediatric primary care: A semi-structured interview study. *BioMedical Central Pediatrics*, 11(74), 1-9. doi: 10.1186/147-2431-11-74.
9. Sanders-Thompson, V. L., Arnold, L.D., Notaro, S.R. (2012). African American parents' HPV intent and concerns. *Journal of Health Care for the Poor and Underserved*, 23(1), 290-301.
10. McRee, A. L., Gilkey, M. B., Dempsey, A. F. (2014). HPV vaccine hesitancy. *Journal of Pediatric Health Care*, 28(6), 541-549.
11. Cassidy, B., Braxter, B., Charron-Prochownik, E. (2013). A quality improvement initiative to increase HPV vaccine rates using an educational reminder and reminder strategy with parents of preteen girls. *Journal of Pediatric Health Care*, 155-164. doi: 10.1016/j.pedhs.2013.01.002

References cont'd

12. Cates, J. R., Ortiz, R., Shafer, A., Romocki, L., S., Coyne Beasley, T. (2012). Designing messages to motivate parents to get their pre-teenage sons vaccinated against human papillomavirus. *Perspectives on Sexual and Reproductive Health*, 44(1), 39-47. doi: 10.1363/4403912
13. Gross, M. S., Tran, C. H., & Castagno, J. C. (2014). Pilot study: Can an educational Intervention increase human papillomavirus vaccination in female college students? *Obstetrics and Gynecology*, 1145-1146.