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Influencing pain management practices in infants through social media

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Introduction

Evidence from randomized controlled trials and systematic reviews have consistently shown that sucrose and breastfeeding effectively reduce pain during infant immunizations.^{1,2} Despite the evidence, these pain management strategies are not routinely used in clinical settings nationwide. There is a need for knowledge translation initiatives to move the evidence into clinical practice.

As society becomes increasingly driven by technology, health information is often sought online. YouTube, an exponentially growing information medium, has over 3000 videos appear when the terms “baby injection” are searched. Typically, these videos show babies crying during and following the procedure, and the majority of these videos do not show use of pain management strategies during the infant immunizations.

Purpose

To evaluate the reach and impact of posting our own YouTube video showing use of breastfeeding and sucrose during infant immunizations.

Methods

This study is a quasi-experimental, pre- and post-intervention design.

Pre-intervention: Baseline systematic review of YouTube videos using the search terms “baby injection” and “baby vaccine” was completed for the study in which 142 videos were included. None of the videos used breastfeeding or sucrose for pain management and almost all of the infants cried for most of the immunization procedure (mean=40 seconds, standard deviation=30 seconds).



Intervention: A 1 ½ minute long video entitled “Baby vaccination; the secret to a calm and peaceful immunization” with a linked online survey was posted on YouTube on October 21, 2013 and will remain posted for 1 year. The efficacy of the video will be based on two outcomes: (1) use of pain management strategies in subsequent videos posted on YouTube showing infant immunizations and (2) viewers intention to use the strategies or recommend them to others as per the online survey.

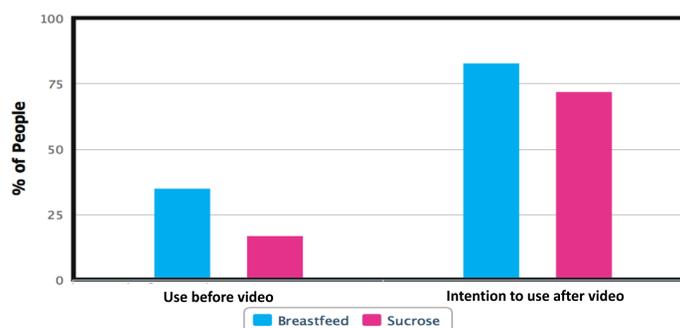
Post-intervention: 12 months following the postings of the videos, a repeat systematic review will be conducted. These results will be compared to the baseline systematic review completed in the pre-intervention.

Results

YouTube Video Survey

Parental Feedback (N=54)

Would you ask your nurse/doctor if you could breastfeed your infant during, or give sucrose for immunizations?



Health Care Provider Feedback (N=81)

Would you encourage mothers to breastfeed their infants during, or give sucrose for immunizations?

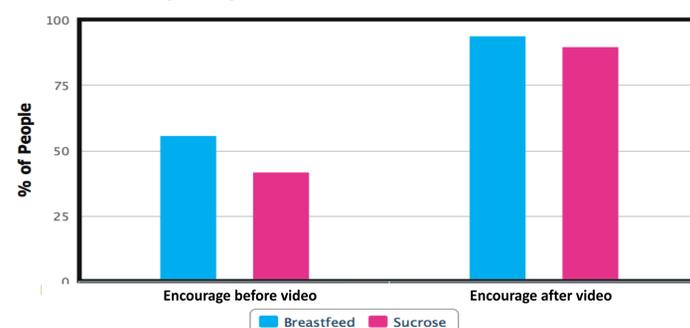


Figure 1: Preliminary survey results (n=137)

According to preliminary results of 137 completed surveys, after viewing the video:

- 96% (N=77) of health care providers (HCPs) and 83% (N=53) of parents would encourage breastfeeding during infant immunizations
- 93% (N=76) of HCPs and 75% (N=52) of parents would encourage giving sucrose before/during an immunization.

YouTube Video Statistics

- The YouTube video has had 24,072 views
- >50% of views were from North America (Figure 2)
- The average view duration is 1 minute 6 seconds (out of 1 minute 35 seconds)



Figure 2: YouTube video view distribution

Conclusions

Based on the number of views and results gathered to date, YouTube is a potentially effective knowledge translation medium for communicating evidence-based health information to the public.

The limited survey responses are disappointing but most likely reflective of the fact that the link to the survey is displayed near the end of the video, at 1 minute 29 seconds, and the average viewer watches to only 1 minute 6 seconds.

This study will contribute to our knowledge of the impact of social media on parents and health care providers to make health-related decisions about pain management and changing practices during immunizations.

References

1. Harrison, D., et al., *Pain management strategies used during early childhood immunisations in Victoria*. Journal of Paediatrics and Child Health, 2013. 49: p.313-318.
2. Harrison, D., et al., *Efficacy of sweet solutions for analgesia in infants between 1 and 12 months of age: a systematic review*. Archives of Disease in Childhood, 2010. 95 (6): p.406-13

Acknowledgements

Thank you to the University of Ottawa Undergraduate Research Opportunity Program for funding and supporting this project. Thank you to the Be Sweet to Babies research team for their continual guidance and support throughout the term.

Contact Information

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