

YouTube as a Source of Pediatric Tonsillectomy Information

Julie Strychowsky, MD¹; Smriti Nayan, MD¹; Jonathan MacLean, MD, FRCSC^{1,2}

¹McMaster University, Division of Otolaryngology-Head & Neck Surgery; ²McMaster Children's Hospital, Hamilton, Ontario, Canada

ABSTRACT

Objectives

To investigate YouTube as a patient information source on pediatric tonsillectomy.

Methods

YouTube was searched on July 31, 2012 for the search terms *pediatric tonsillectomy*, *tonsillectomy* and *tonsil surgery*. Non-English videos were excluded. Two physician reviewers independently assessed the videos for characteristics, usefulness, and information source.

Results

One hundred fifty-six videos were included in the analysis. Forty videos were classified as very or moderately useful (25.6%). Sources of the videos were as follows: patient experience, 103 videos (66%), surgical technique, 14 (9%); physician, 30 (19%); and news report, 9 (6%).

Conclusions

YouTube has a large number of videos on pediatric tonsillectomy with a variety of content ranging from very useful to not useful, and misleading.

INTRODUCTION

Tonsillectomy is a common surgery performed on pediatric patients by Otolaryngologists. The Internet is an easily accessible source for healthcare information¹. Fifty million Americans search health-related information on the Internet monthly, with 100 million viewers accessing websites such as YouTube².

YouTube is a popular source of video blogs and short original videos uploaded by individuals³. Most videos on YouTube are based on personal experience although some professional videos are also available. This diversity of authorship has led to the posting of inaccurate or misleading information^{1,2}. In this study, YouTube, was evaluated as a patient source of information for pediatric tonsillectomy.

METHODS AND MATERIALS

YouTube (www.youtube.com) was searched on July 31, 2012 for videos containing relevant information about tonsillectomies in pediatric patients. The following search terms were used: *pediatric tonsillectomy (PT)*, *tonsillectomy (T)*, and *tonsil surgery (TS)*. Non-English videos were excluded. On the assumption that no user would go beyond the first three pages for a specific search term, only the videos on these pages were evaluated.

Two physician reviewers (J.S. and S.N.) independently assessed each video for characteristics (duration, number of views, days since upload, likes/dislikes), content (usefulness, misleading), and source (patient experience, surgical technique, physician, news report). The authors created a checklist for evaluating usefulness (Table 1). At present, no validated tool for this purpose exists in the literature. Discrepancies were resolved by consensus.

Data were analyzed with SPSS software version 21 (SPSS Inc., Chicago, IL). Descriptive statistics using measures of central tendency or frequency when appropriate were reported.

RESULTS

The search identified 2594 videos (search terms *PT*=86 videos, *T*=1880, *TS*=628). After limiting the review to the first three pages of search results and excluding irrelevant videos, 156 videos were reviewed (*PT*= 38, *T*=59, *TS*=59). Descriptive statistics are listed in Table 2. Only five videos were very useful (3.2%). Most videos were somewhat useful (39.2%) or not useful (32.7%). Three videos were misleading (1.9%). Physician sourced information was generally at least moderately useful. Patient experience videos were the predominant source of videos categorized as not useful (Figure 1). The search term *PT* yielded the highest percentage of very useful (60%) and the lowest percentage of not useful videos (5.9%) (Figure 2).

	<ul style="list-style-type: none"> ✓Indications ✓Specialist Referral ✓Basic Tonsil Information
Preoperative	
Intraoperative	<ul style="list-style-type: none"> ✓Surgical technique ✓Anesthetic ✓Bleeding
Postoperative	<ul style="list-style-type: none"> ✓Recovery ✓Pain ✓Delayed Bleeding ✓Dehydration ✓Other
Usefulness	<ul style="list-style-type: none"> Very Useful 8-11 Moderately Useful 4-7 Somewhat Useful 1-3 Not Useful 0
Total points available: 11	

Table 1. Usefulness checklist.

	Very Useful (8-11)	Moderately Useful (4-7)	Somewhat Useful (1-3)	Not Useful (0)	Misleading
Number of Videos	5	35	62	51	3
Mean Duration mm:ss	11:04 ± 6:00	6:22 ± 4:45	4:32 ± 6:22	2:39 ± 4:00	6:00 ± 3:31
Mean No. of Days Online	951 ± 1650	475 ± 429	362 ± 386	693 ± 641	301 ± 260
Mean No. of Views	4104 ± 5489	52135 ± 151131	38036 ± 155333	19838 ± 123477	782 ± 350
Mean Likes	4.4 ± 5.2	104.7 ±	15.7 ± 55.6	9.0 ± 50.9	0.7 ± 0.6
Mean Dislikes	1.2 ± 1.6	3.5 ± 7.9	2.2 ± 6.9	1.7 ± 9.5	1.7 ± 1.2
Source					
Patient Experience	1	17	33	50	1
Surgical Technique	1	0	12	1	0
Physician	3	15	11	0	2
News Report	0	3	6	0	0
Search Term					
PT	3	10	21	3	1
T	1	16	34	7	1
TS	1	9	7	41	1

Table 2. Descriptive statistics. (Mean ± SD where appropriate)

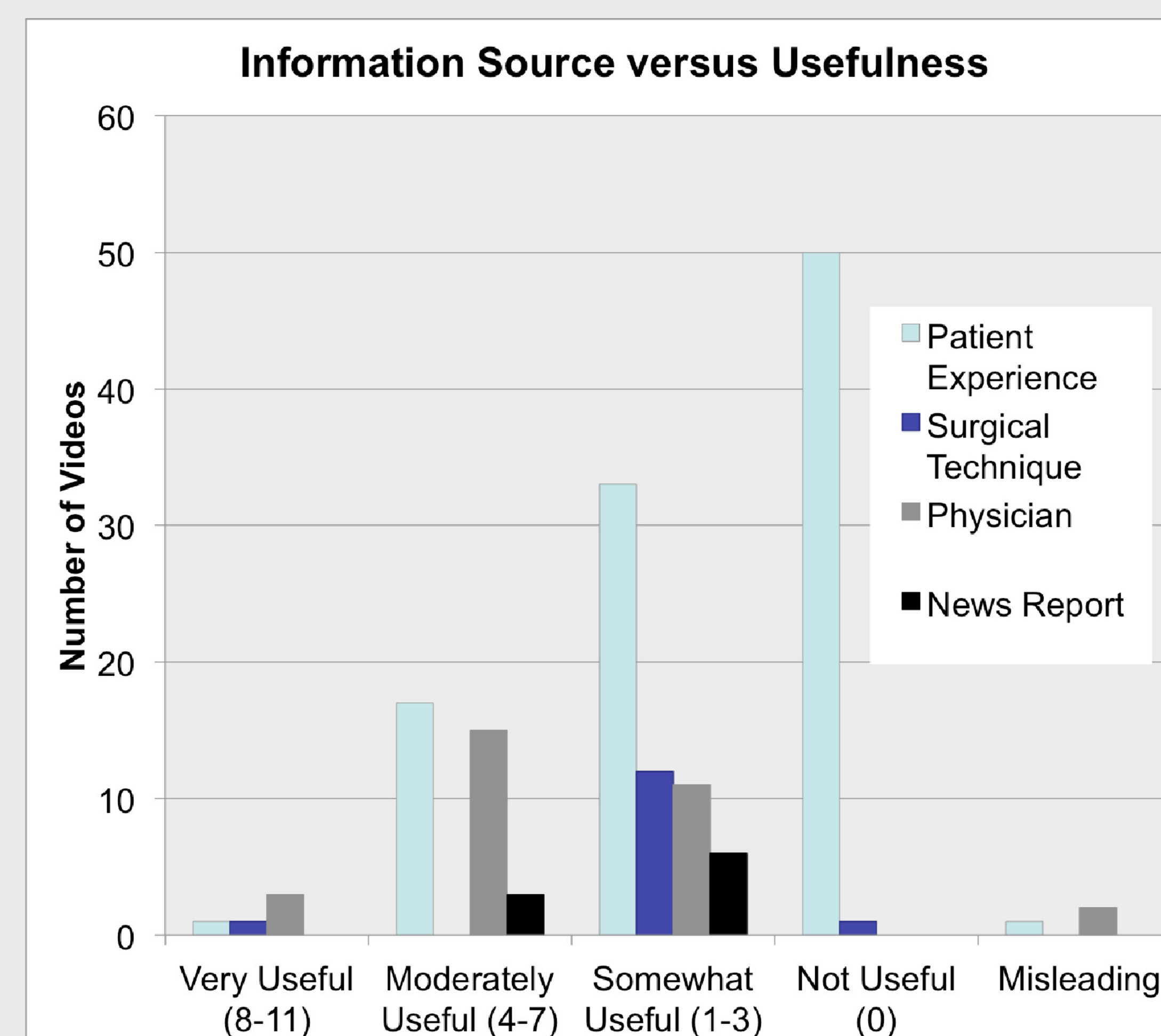


Figure 2. Information source versus usefulness.

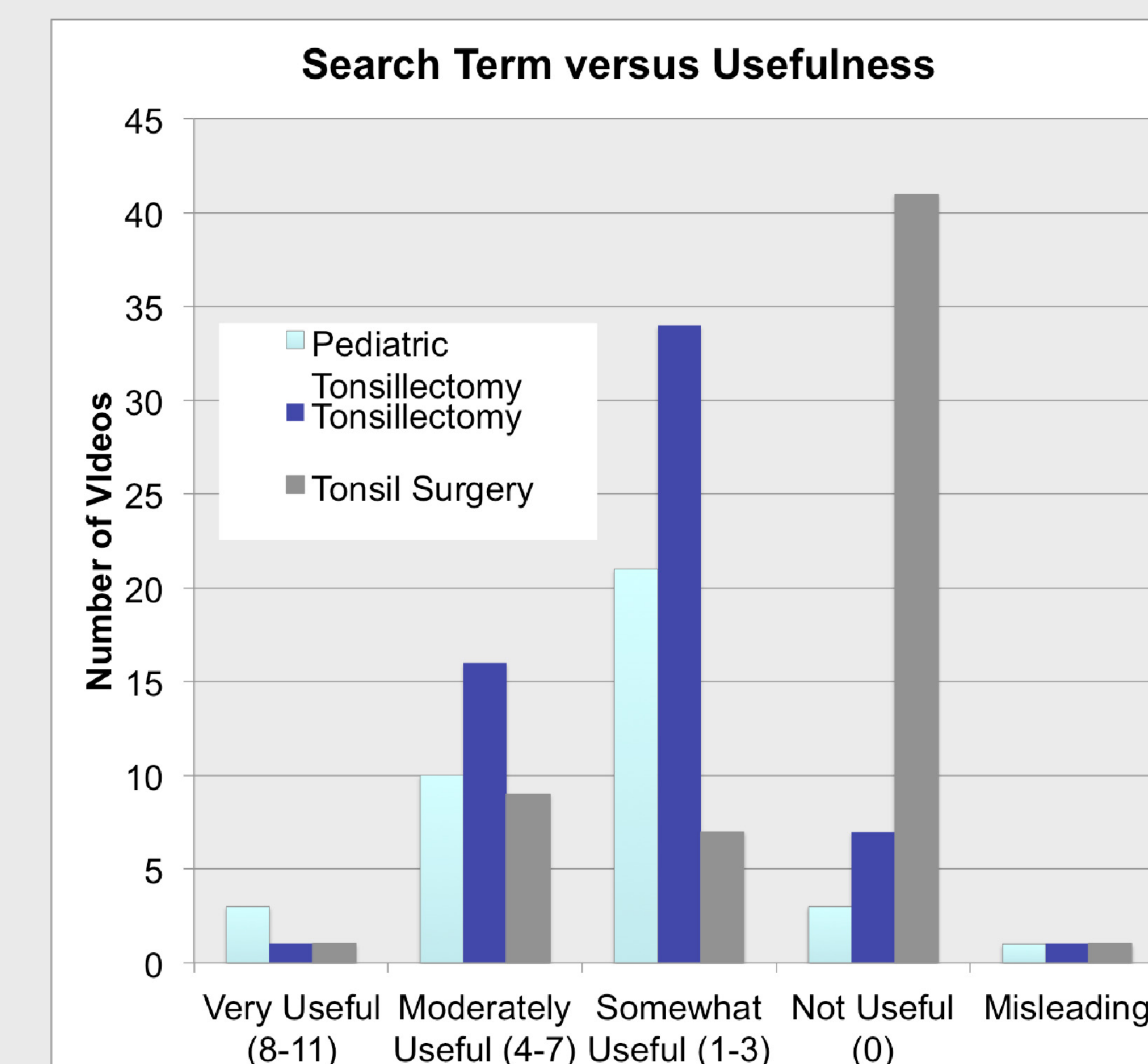


Figure 3. Search terms versus usefulness.

DISCUSSION

To the best of our knowledge, this is the first study to evaluate the usefulness of YouTube as a patient source of information for pediatric tonsillectomy. Only 3.2% of these videos were considered to be very useful and of these, physicians posted the majority. Most videos were categorized as somewhat useful or not useful (71.9%). The most useful videos were identified with the search term *PT*; however, 23 out of 61 results from this search (37.7%) were excluded because of non-relevant content. Patients or their caregivers may not use this particular terminology when searching online resources.

YouTube is user-driven and yet not peer-reviewed.⁴ Content may be biased because the majority of videos are personal testimonials.² Our study determined three studies to be misleading. The first was posted by an adolescent pediatrician who presented himself as an expert and reported inaccurate guidelines.⁵ The second video showed a child undergoing tonsillectomy without a general anesthetic in Belarus.⁶ The third video was a patient who attributed the need for tonsillectomy to lactose in the diet.⁷ Patients may come across these resources and form inaccurate opinions regarding tonsillectomy.

CONCLUSIONS

YouTube has a substantial number of videos on pediatric tonsillectomy with a variety of content ranging from useful to misleading. Health care professionals must recognize the potential influence that these user-generated video Web sites may have on the attitudes of patients and their caregivers. A small number of these videos were deemed very useful and could be considered as valuable adjuncts for patient education.

REFERENCES

- Pandey A, Patni N, Singh M, et al. YouTube As a Source of Information on the H1N1 Influenza Pandemic. *Am J Prev Med.* 2010;38:e1-e3.
- Sood A, Sarangi S, Pandey A, et al. YouTube as a Source of Information on Kidney Stone Disease. *Urology.* 2011;77:558-63.
- YouTube. In *Wikipedia*. Retrieved September 4, 2012, from <http://en.wikipedia.org/wiki/YouTube>.
- Steinberg PL, Stern JM, Deters Lm et al. YouTube as Source of Prostate Cancer Information. *Urology.* 2010;75:619-22.
- Tonsils when to worry. In *YouTube*. Retrieved July 31, 2012, from <http://www.youtube.com/watch?v=ZXRBNpGruT4>.
- Ear infections & dairy products, tonsil removal & surgery. In *YouTube*. Retrieved July 31, 2012, from <http://www.youtube.com/watch?v=JoW95L0Lp0>.
- Tonsillectomy. In *YouTube*. Retrieved July 31, 2012, from <http://www.youtube.com/watch?v=qjTC1h1P0vI>.

