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Parental knowledge in pediatric otolaryngology surgical consultations: A qualitative content analysis

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A B S T R A C T

Objective: To understand the source of parents' knowledge prior to and desire for further information following pediatric otolaryngology surgical consultations.

Methods: Mixed-methods approach using descriptive and qualitative content analysis of interviews with parents following otolaryngology consultations for children under the age of 6 years was performed. The children were being seen for either tonsillitis, obstructive sleep apnea, otitis media, and/or sinusitis/nasal obstruction.

Results: Forty-one parents completed a phone interview two weeks following their child's surgical consultation. The majority of parents indicated that their primary care physician referred their child for either: investigation of symptoms (50%), to have a specific discussion about surgery (27.5%), or because other treatment options were no longer working (20%). Many parents (56.5%) indicated that the Internet was their primary source of information prior to the appointment. Most parents (93%) wanted more information; majority of these parents noted that a technology-based mode of delivery of information available prior to the appointment would be most desirable. Desired information was most often regarding the surgical procedure, including risks and benefits, and symptoms of concern prior to surgery.

Conclusion: This study provides a description of parental knowledge and information sources prior to their child's surgical consultation and continued desire for information. This information may lead to decreased knowledge barriers and increased communication to facilitate shared decision-making between the provider and parents.

1. Introduction

Adenotonsillectomy and tympanostomy tube insertion are the most common surgeries performed during childhood [1,2]. These procedures are mostly elective, and therefore a decision must be made about whether surgery should be performed. Within healthcare, there is a general move towards shared decision-making between the patient and provider [3], which is of particular importance when considering elective surgical procedures.

Shared decision-making is an integral part of patient-centered care; however, in order for shared decision-making to be effective, patients must be engaged in the decision-making process [4]. In the current technological age, patients have access to a great deal of medical information prior to their appointment with a healthcare provider [5]. Whereas this information can provide patients with a sense of autonomy and perceived knowledge of their symptoms and available treatment options, it is important to note that this information may not always be accurate or relevant for the patient's personal situation [6]. Therefore, in order to improve shared decision-making in otolaryngology consultations, it is important to understand what information patients (or parents, in the case of young children) possess when they arrive and what information they want during and after the consultation visit. As consultation appointments are relatively short in duration [7], understanding patient/parent information needs could improve the efficiency by allowing providers to better target their discussions [8]. The aim of this study was to describe the source of parents' knowledge prior to consultations and their desire for further information during and after the visit.

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2. Materials and methods

The results from this study are part of a larger mixed-methods study assessing shared decision-making in pediatric otolaryngology. The current results are based on qualitative content and descriptive analysis of phone interviews conducted with parents two weeks after their child's surgical consultation visit.

2.1. Participants

Participants were recruited from a large tertiary pediatric hospital and were parents of children less than 6 years of age who were being evaluated by one of three fellowship trained pediatric otolaryngologists for one of four conditions that may be treated with surgery (chronic/recurrent tonsillitis, obstructive sleep apnea, chronic/recurrent otitis media, and chronic/recurrent sinusitis/nasal obstruction). Caregivers were eligible to participate if they were fluent in English and able to make medical decisions for their child.

The attending surgeon discussed the risks and benefits of the surgical procedures. After this discussion, the surgeon obtained consent, which was then followed by a short visit with the clinic nurse who then covered information pertaining to preoperative details (e.g., when to stop oral intake before surgery) and postoperative care (e.g., when to become concerned about hydration status). Before leaving the clinic, all parents were given information pamphlets that review the basic information about the relevant surgical procedure.

2.2. Procedure

This study was approved by the local institutional research ethics board. One of two clinic nurses informed eligible parents of the study in the waiting room, and interested parents met with a research assistant who described the study and obtained consent for participation. As part of the larger study, participants completed measures before and after the consultation visit and participants completed a phone interview as described below. This manuscript reports on the content from the phone interviews, which were all audiotaped and transcribed. Transcriptions were checked for accuracy.

2.3. Measures

All participants completed a basic demographic questionnaire. Two weeks following the consultation, participants completed either a brief or full phone interview consisting of open- and closed-ended questions (Appendix). All participants completed the brief interview questions, and a subsample of participants continued to the full interview questions based on their availability and engagement in responding to the initial brief interview questions. Full interviews were conducted until data saturation was reached for the additional questions. The brief interview consisted of questions about the referral source, wait time between referral and consultation (longest time reported), available treatment options, sources of information, and perceived barriers/facilitators of shared decision-making. The full interview included the same questions as the brief interview, and additional questions about perceived need for further information regarding treatment options, preferred method of receiving this information, and content of information desired. Participants were provided with three options for preferred method of delivery of desired information (website, smartphone app, and/or printed brochure), and they could choose more than one mode of delivery. The interviews were conducted by two research assistants following a semi-structured format.

2.4. Data analysis

Interviews were analyzed using mixed-methods approach of descriptive analysis of responses to close-ended questions and qualitative content analysis of open-ended questions [9]. The purpose of qualitative research is to understand the experiences of individuals as they encounter specific situations in life [9]. Qualitative content analysis is used to inductively generate meaningful categories and provide organization of data from the entire group of participants [10]. These categories can be transferred to other populations at the discretion of the providers working with a similar patient population or other populations [11]. For this study, the primary author reviewed all the interview transcripts and generated content categories with accompanying definitions based on all participants' responses. Data were then coded by category and the number of responses within each content category was summarized. Separate categories were generated for responses to each open-ended question. Data was managed and analyzed using SPSS 17 for Windows (IBM Corp., Armonk, N.Y.). A second coder validated the content categories and coding decisions. Content categories are described in the results section and descriptive data are presented as number of responses in each category. To support rigor in methods, categories were further supported by direct quotes [12].

3. Results

3.1. Participants

Between May and September 2014, 65 parents (80% mothers, mean age 33.82 years, standard deviation (SD) = 5.65, range 22 to 53) participated in this study. The following indicates breakdown of the conditions and the surgeries considered: chronic/recurrent tonsillitis (considering tonsillectomy) (1, 1.5%); obstructive sleep apnea (considering tonsillectomy and/or adenoidectomy) (11, 16.9%); chronic/recurrent acute otitis media (considering myringotomy and tympanostomy tube insertion) (43, 66.2%); and chronic/recurrent sinusitis/nasal obstruction (considering adenoidectomy) (4, 6.2%). Six consultations (9.3%) were for a combination of these indications.

The majority of participants self-identified as Caucasian/non-Hispanic white (90.8%), followed by African Canadian (6.2%), First Nations/Native Canadian, and Middle Eastern (both 1.5%). Children (69.2% male) were between the ages of 9 to 72 months (mean = 37.29, SD = 15.93 months). Of the 65 parent participants, 41 completed the brief interview and 27 of these 41 participants completed the additional full interview questions. The brief interviews took an average of 7 min 10 s (SD = 1 min 58 s). The full interviews took an average of 11 min 16 s (SD = 2 min 54 s). One parent was removed from the sample as he was not the parent who attended the consultation appointment. There were no significant differences between participants who completed the phone interviews and those who did not for type of primary surgery, marital status, household income, ethnicity, and parent and child age and gender.

The interviews were conducted with families who elected to proceed with surgery ($n = 25$) and those who did not ($n = 16$). There were no significant differences between parents who consented for surgery and those who did not for the following variables: completion of the full or brief interview, referral source, and source of knowledge. Only two participants indicated that they did not desire additional sources of information (see below), therefore this comparison could not be assessed. As there were no significant differences between these two groups, all participants were included in the analyses below.