

Knowledge, Behavior and Practice Toward Paediatric Tonsillectomy Among Parents in Aseer region, Saudi Arabia (2020)

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Received: March 2021; Accepted: April 2021; Published: May 1, 2021.

Citation: Ali Maeed Sulaiman Al-Shehri et al. Knowledge, Behavior and Practice Toward Paediatric Tonsillectomy Among Parents in Aseer region, Saudi Arabia (2020). World Family Medicine. 2021; 19(5): 43-50 DOI:10.5742/MEWFM.2021.94048

Abstract

Background: Tonsillectomy is defined as the surgical excision of the palatine tonsils. Tonsillectomy is performed less often than it once was, but it is still among the most common surgical procedures performed in children in the United States. In 1959, 1.4 million tonsillectomies were performed in the United States. This number had dropped to 260,000 by 1987, when it was the 24th most common indication for hospital admission.

Methods: Data were collected from participants using an electronic pre-structured questionnaire. The researchers developed the questionnaire with the help of field experts and after intensive literature review. The tool was reviewed using a panel of 3 experts for validation and applicability. The questionnaire was uploaded online using social media platforms by the researchers and their friends during the period from 1st June 2020 till 30th of December -2020. Convenience sampling method was used.

Results: Out of a total 239 respondents the mean (SD) age of the respondents was 32.71(10.71). 65% were fathers and 35% were mothers. From the data we observed that 15.5% of the children of the respondents had passed through the tonsillectomy process.

Conclusion: The educational level and socioeconomic status of the parents were the key factors associated with these positive behaviors. These results indicate that conducting educational programs on tonsillectomy can be beneficial.

Key words: knowledge, behavior, practice, tonsillectomy process

Background

Tonsillectomy is defined as the surgical excision of the palatine tonsils. Tonsillectomy is performed less often than it once was. It is still among the most common surgical procedures performed in children in the United States. In the UK, few children with evidence-based indications undergo tonsillectomy and seven in eight of those who do (32 500 of 37 000 annually) are unlikely to benefit. (2). Tonsillectomy is a popular surgical procedure for children. Tonsillectomy is a surgical procedure that varies in frequency from one area to the next, as well as from one country to the next. Family characteristics and patient performance also influence the decision to perform tonsillectomy(3-4).

Tonsillectomies among children under the age of 15 years differ significantly between countries and regions, with 19 per 10,000 children in Canada, 50 in the United States, and 118 per 10,000 children in Northern Ireland registered in 1998. In 2006, published rates still varied widely across the world (5-6).

As per one study in terms of tonsillectomy, Saudi Arabian otolaryngologists tend to meet international guidelines(7). The most common reason for dissection was recurrent tonsillitis. Complications are often not shared with, or made clear to, the clinician during surgical consultation. According to a Taif based study in children, tonsillar disease is one of the common causes of primary care visit to physicians and the choice of treatment is often tonsillectomy(8-9).

Traditional medicine has a long tradition in Asir (the valley between the Red Sea and the Sarawat mountains in the Southwestern region of Saudi Arabia). The curing practices used there include skin cautery, herbs, and a variety of other techniques. Tonsils are being manually manipulated or cut by local healers, something we are reporting on and drawing attention to. Therefore, the study aims to evaluate the knowledge, behavior, and practice of parents regarding tonsillectomy process for children in Aseer region, Saudi Arabia. In addition, a multicenter randomized clinical trial found that a large number of children with obstructive sleep apnea would have their symptoms resolved over time without tonsillectomy(10-12).

As a consequence, the surgical decision for the parents may be complicated and multifaceted, and they may seek knowledge from external (e.g., online) sources to help them make the best decision possible(13-15).

Because of the related morbidities, parents have mild disagreement over the surgical decision. Extreme postoperative discomfort, bleeding, or vomiting, as well as complications of general anesthesia, such as respiratory failure and, in rare circumstances, death, are both hazards and effects of tonsillectomy(16-18).

In Aseer region of Saudi Arabia we do not have much published data to address our topic therefore we conducted the study with the aim to evaluate the knowledge, behavior, and practice of parents regarding tonsillectomy process for children in Aseer region, Saudi Arabia.

Methods

Data were collected from participants using an electronic pre-structured questionnaire. The researchers developed the questionnaire by the help of field experts and after intensive literature review. The tool was reviewed using a panel of 3 experts for validation and applicability. Tool reliability was assessed using pilot study of 25 participants with reliability coefficient (α -Cronbach's) of 0.81 for awareness and knowledge section. The questionnaire included the following data: participants' socio-demographic data like age, gender, work, and education and then awareness and knowledge questions. The questionnaire was uploaded online using social media platforms by the researchers and their friends during the period from 1st June 2020 till 30th of December 2020. Convenience sampling method was used. The questionnaire was distributed to the parents in Aseer region; a total 250 questionnaires were distributed out of them there were 239 respondents (11 were missing); response rate was therefore 95.6%.

After data were extracted, it was revised, coded, and fed into Statistical Software IBM SPSS version 22 (SPSS, Inc. Chicago, IL). P value less than 0.05 was statistically significant. Descriptive statistics (mean, S.D, frequencies and percentages) were computed; to measure the differences between variables we used chi-square test at 5% level of significance.

Results

Out of a total 239 respondents the mean (SD) age of the respondents was 32.71(10.71). 65% were fathers and 35% were mothers. From the data we observed that 15.5% of the children of the respondents had passed through the tonsillectomy process.

Table 1 depicts that in the response to the question "A child whose tonsils have been removed has an immune system with the same efficiency before and after the operation" 33.99% opted the yes option while 32.6% opted No and interestingly 33.5% of the respondents have no idea about that. Table 2 depicts that that majority of the respondents (71.5%) have undergraduate and more level of study while in income group 25.1% belong to 10000-15000 SAR and above 15000 SAR monthly income. Figure 2 depicts that 59.0% of the parents have children

Figure 1

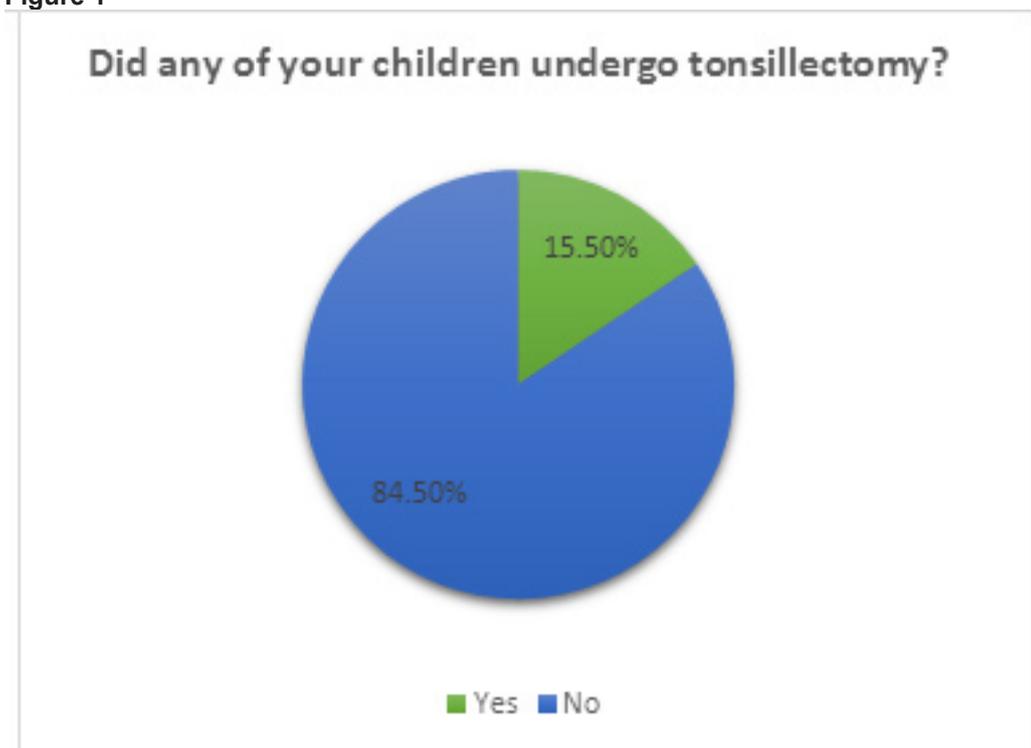


Table 1

| A child whose tonsils have been removed has an immune system with the same efficiency before and after the operation. | | |
|---|-----------|---------|
| | Frequency | Percent |
| Yes | 81 | 33.9 |
| No | 78 | 32.6 |
| Do not know | 80 | 33.5 |
| Total | 239 | 100.0 |

Table 2

| Education Level | | |
|---|-----------|---------|
| | Frequency | Percent |
| Primary school | 16 | 6.7 |
| Secondary school | 52 | 21.8 |
| Undergraduate or more | 171 | 71.5 |
| Total | 239 | 100.0 |
| Average monthly household income in SAR | | |
| | Frequency | Percent |
| Less than 5000 | 60 | 25.1 |
| 5000 - 10,000 | 59 | 24.7 |
| 10,000 - 15,000 | 60 | 25.1 |
| More than 15,000 | 60 | 25.1 |
| Total | 239 | 100.0 |

Figure 2

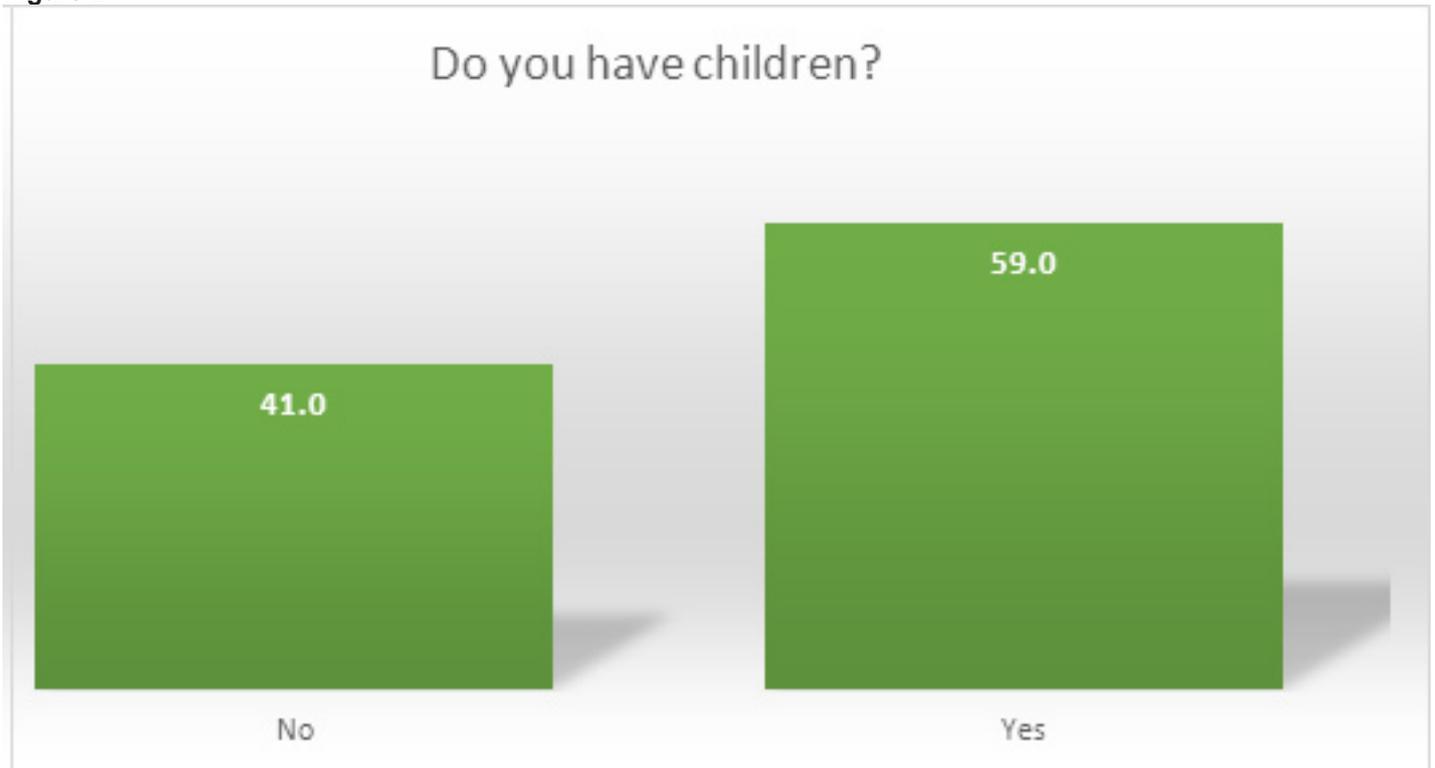


Table 3

| Does tonsillectomy reduce the frequency and severity of recurrent sore throat? | | |
|--|-----------|---------|
| | Frequency | Percent |
| Yes | 217 | 90.8 |
| No | 22 | 9.2 |
| Total | 239 | 100.0 |
| After the procedure, it is preferable to provide cold food and ice cream for the child for a week. | | |
| | Frequency | Percent |
| Agreed | 212 | 88.7 |
| Disagreed | 27 | 11.3 |
| Total | 239 | 100.0 |
| Aspirin and ibuprofen may be given within 10 days before the procedure | | |
| | Frequency | Percent |
| Agreed | 94 | 39.3 |
| Disagreed | 145 | 69.7 |
| Total | 239 | 100.0 |

According to Table 3, 90.8% agreed that tonsillectomy reduces the frequency and severity of recurrent sore throat?, 88.7% agreed that after the procedure, it is preferable to provide cold food and ice cream for the child for a week, 69.7% disagreed that Aspirin and ibuprofen may be given within 10 days before the procedure.

Figure 3

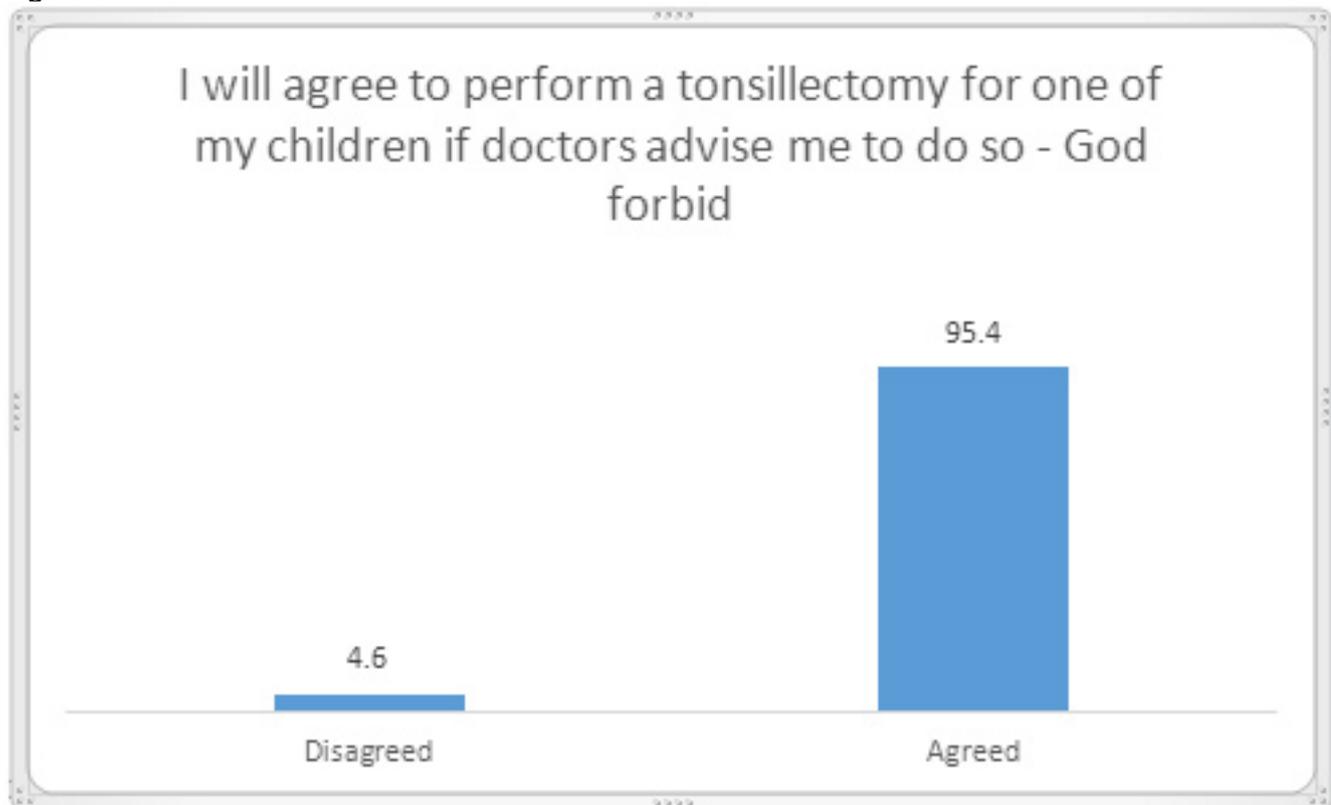


Figure 3 depicts that 95.4% of the respondents would agree to perform a tonsillectomy for one of their children if doctors advise them to do so - God forbid

Figure 4

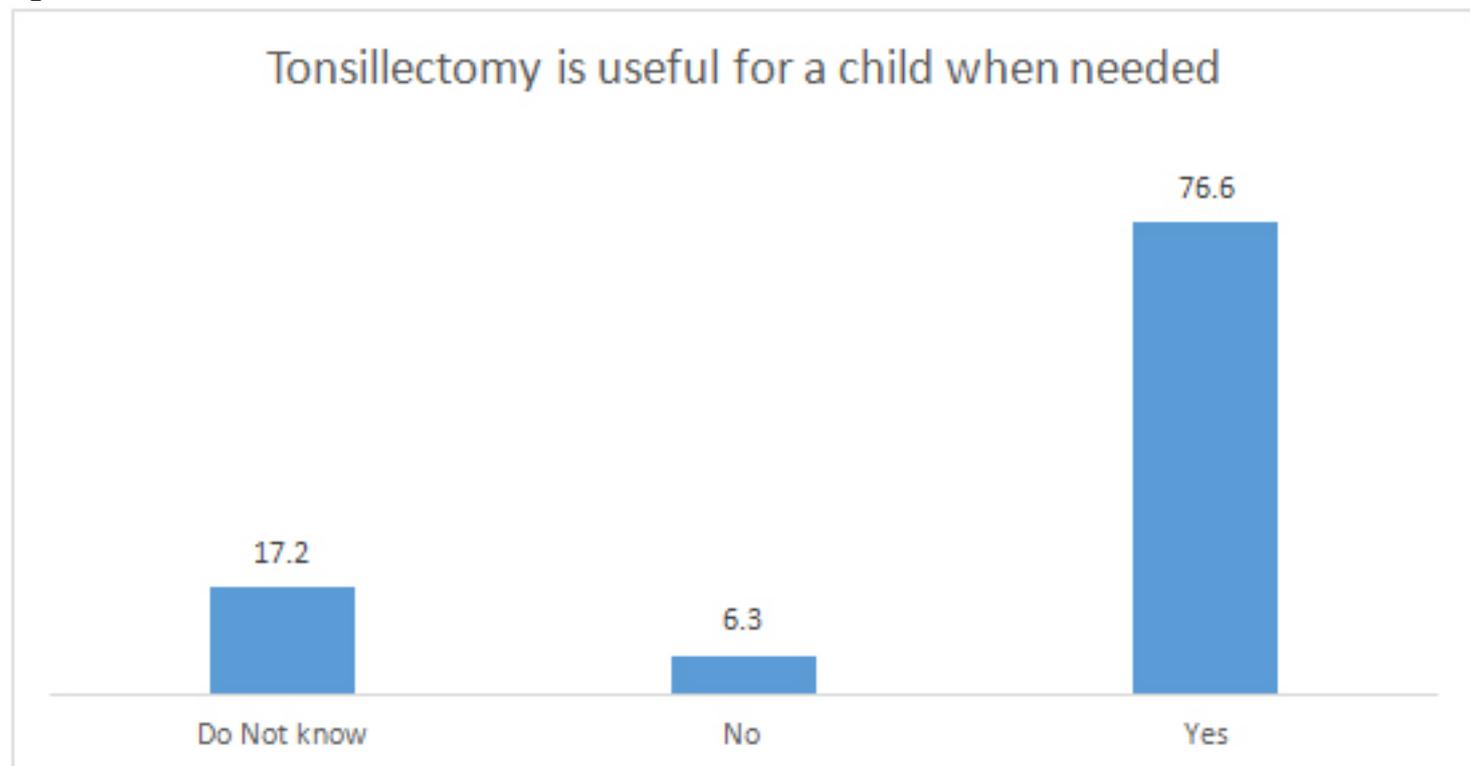


Figure 4 depicts that parents agreed that Tonsillectomy is useful for a child when needed.

Table 4

| Table 4: | | Is tonsillectomy performed in the case of recurrent acute tonsillitis? | | | Total |
|---|------|--|-----------|-------------|-------|
| | | Agreed | Disagreed | | |
| Did any of your children undergo tonsillectomy? | Yes | 35 | 2 | | 37 |
| | No | 174 | 28 | | 202 |
| Total | | 209 | 30 | | 239 |
| p=0.119 | | | | | |
| | | Is the operation to remove tonsils in the case of tonsil abscess | | | Total |
| | | Agreed | Disagreed | | |
| Did any of your children undergo tonsillectomy? | Yes | 29 | 8 | | 37 |
| | No | 148 | 54 | | 202 |
| Total | | 177 | 62 | | 239 |
| p=0.334 | | | | | |
| | | The complications of the operation are either few or none | | | Total |
| | | Agreed | Disagreed | Do not know | |
| Did any of your children undergo tonsillectomy? | Yes | 26 | 3 | 8 | 37 |
| | No | 104 | 29 | 69 | 202 |
| Total | | 130 | 32 | 77 | 239 |
| p=0.107 | | | | | |
| | | Tonsillectomy is useful for a child when needed | | | Total |
| | | 1.00 | 2.00 | 3.00 | |
| Did any of your children undergo tonsillectomy? | 1.00 | 35 | 1 | 1 | 37 |
| | 2.00 | 148 | 14 | 40 | 202 |
| Total | | 183 | 15 | 41 | 239 |
| p=0.005 | | | | | |

In Table 4 we compared variables “Did any of your children undergo tonsillectomy?” with “Tonsillectomy is useful for a child when needed” “The complications of the operation are either few or none”, “Is the operation to remove tonsils in the case of tonsil abscess”, “Is tonsillectomy performed in the case of recurrent acute tonsillitis?” And we have observed significant difference between only “Did any of your children undergo tonsillectomy” with “Tonsillectomy is useful for a child when needed”

Table 5

| | | Did any of your children undergo tonsillectomy? | | Total |
|----------------------------------|----------------------------------|---|------|-------|
| | | Yes | No | |
| Average monthly household income | Less than 5000 | 5 | 55 | 60 |
| | 5000 - 10,000 | 5 | 54 | 59 |
| | 10,000 - 15,000 | 12 | 48 | 60 |
| | More than 15,000 | 15 | 45 | 60 |
| Total | | 37 | 202 | 239 |
| $p=0.022$ | | | | |
| | | Did any of your children undergo tonsillectomy? | | Total |
| | | 1.00 | 2.00 | |
| Educational level | Primary school | 1 | 15 | 16 |
| | Secondary school | 7 | 45 | 52 |
| | Undergraduate education and more | 29 | 142 | 171 |
| Total | | 37 | 202 | 239 |
| $p=0.475$ | | | | |

In table 5 we compared education level and social status with “Did any of your children undergo tonsillectomy?” And we observed a significant difference among social status and “Did any of your children undergo tonsillectomy?”

Discussion

The main objective of this study was to evaluate parental knowledge / awareness about the process of tonsillectomy. 15.5% of the children of the respondents underwent the process of the tonsillectomy which is in line with the Denmark study. Between 1980 and 2001, 6 to 9% of people under the age of 20 in Denmark had their tonsils removed (19-20). Tonsillectomy rates, on the other hand, differ dramatically during childhood, with peaks in early childhood (age 4-5 years) and adolescence (age 16-17 years). The findings of our study are in line with a study conducted in the Riyadh where the majority of parents in Riyadh, Saudi Arabia, had positive awareness, attitudes, and practices about pediatric ear infections, according to this report. Other factors that boost ear infection awareness, attitude, and behaviors should be analyzed in future studies(20-21).

Even if the child had medical benefits, poverty was related to the inability to pay for healthcare and transportation costs. When compared to parents with lower levels of education, parents with higher levels of education were more likely to have more awareness and constructive care-seeking behaviors. However, there was no discernible connection between attitude and educational attainment(20-25). These findings are in line with the findings of our study that social status produced the significant impact over the selection of tonsillectomy process. In our study the majority (77%) agreed that tonsillectomy is helpful when

it is required, which is in line with a study that stated that shared decision making, whereby physicians present all treatment alternatives and make joint decisions with parents on the basis of the preferences and values of the child and family, is known to reduce decision conflict (15-28). Shared decision making, in which doctors present all care options to parents and make joint decisions based on the child's and family's interests and values, has been shown to minimize decision conflict.

Because parents are the primary caregivers for the pediatric patient (45) the surgeon may advise parents to anticipate the potential difficulties, probe for parental concerns when discussing the surgical decision, and offer recommendations when needed(29-30).

Acknowledgement:

We acknowledge the efforts of Mr. Muhammad Abid Khan for data analysis and valued inputs.

Conclusion

In this report, the majority of Saudi Arabian parents had strong knowledge of, attitudes toward, and care-seeking activities for tonsillectomy. The educational level and socioeconomic status of the parents were the key factors associated with these positive behaviors. These results indicate that conducting educational programs on tonsillectomy can be beneficial.

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