



## Knowledge and Awareness of Hazards Associated with Use Cotton Buds in Saudi Community

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**Abstract:** Cotton buds are commonly used to clean the ears, remove wax, in case of itching in the ear, aural toilet in discharging ears and some time as a habit. The current study aims to explore the level of awareness and knowledge among the Saudi community regarding the hazards associated with using cotton buds for ears cleaning. A cross-sectional descriptive study had been performed on a sample composed of 93 individuals by administering a pre-designed questionnaire for two weeks period. Results had shown that there is a significant lack of knowledge and awareness among the community members regarding the hazards and further complications that could result from using cotton buds for ears cleaning. Moreover, findings of the study had shown that there is a weakness in providing the correct information and guidelines about the risk of using cotton buds. The study concluded that Saudi community has a poor awareness and knowledge levels regarding the hazards associated with the use of cotton buds, and recommends that intensive awareness campaigns are needed to educate people and increase their knowledge level.

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### 1. Introduction:

Ear cleaning is a human hygiene standard. Many types of research and studies have warned against practices that may hurt hearing. Researchers from the American Academy of Otolaryngology have introduced new guidelines for ear hygiene, warning that the introduction of foreign devices or objects in the ear canal, such as cotton buds cause hearing problems and increases the secretion of the ear wax (Roland *et al.*, 2008). Experts had explained that cleaning the ear manually increases the risk of perforating the eardrum, affects the small bones in that area, and increases the chances of introducing this wax material to a very deep area, which may cause itching, pain, and tinnitus (Paulose *et al.*, 1989).

Ear wax is a naturally made substance in the ear canal protecting the skin inside the ear against bacteria, fungi, insects, and water, lubricating and cleaning the ear. Trying to remove the earwax from the auditory canal cause the obstruction of the canal, pain, and hearing problems (Burton & Doree, 2009).

The use of ear-cleaning sticks is one of the main causes of perforation of the eardrum, which may require surgery (Tseng, 2000). It is advisable to avoid using them to clean the ear, and only to clean the ear flange from the outside.

Some may think that the survival of the earwax in the ear is harmful, but this is not entirely true. The presence of this substance is necessary. The cotton buds are on the top of the list of instruments used to remove ear wax. Despite warnings sometimes written on products of the cotton buds, which warn against using them " not suitable for cleaning ears", many people ignore these warnings (Hobson and Lavy, 2005).

The current study aims to investigate the knowledge level among the Saudi community regarding the hazards associated with using cotton buds when cleaning the ears.

### 2. Methodology:

A cross-sectional descriptive study had been carried out among a randomly selected sample that is composed of 93 adults, over a two weeks period between September and October 2017. The study had covered various social categories as the sample had been selected from various places (Hospitals, Universities, Markets...etc.).

A semi-structured questionnaire was used as a data collection instrument. It was composed of two parts; the demographic data part, and the part of the awareness and



knowledge regarding the hazard associated with using cotton buds in cleaning the ears.

Data were harvested, tabulated, coded and analyzed using the Statistical Package of Social Sciences (SPSS) software (IBM Corp. v. 20.0). frequencies and percentages were calculated for the study participants' responses. Inclusion criteria were subjects over 18 years old and provided a consent to participate in the study.

Approvals had been obtained officially from the responsible authorities to carry out the study, and the ethical considerations of the research committee were maintained during the study. The study was performed under the institutional research and ethics committee.

**3. Results:**

Results shown in the table 1 represent the study sample distribution according to their demographic characteristics. Participants ranging in age between 31 to 37 years and 25 to 31 years had constituted the highest two categories with a percentage equals to 40% and 30%, respectively.

Male participants were two times higher more than females, they had constituted 65.6% while females represented 34.4%.

According to the educational background of the participants, statistics had shown that undergraduate participants were the highest represented category as they had constituted 63.4%. (Table 1)

Table 1: Study sample distribution according to their demographic data.

Characteristic	Frequency (N)	Percentage (%)
Age	18 – 24	13 14%
	25 – 31	28 30%
	31 – 37	37 40%
Gender	More than 37	15 16%
	Male	61 65.6%
	Female	32 34.3%
Education	Illiterate	4 4.3%
	Secondary stage	21 22.6%
	Undergraduate	59 63.4%
	Postgraduate	9 9.7%

Results presented in table 2 represent the participants' responses to the questionnaire items.

Responses regarding the main reason for using cotton buds for ear cleaning had yielded that itching was the highly represented reason forcing the participants to use cotton buds, as 57% of them had responded to that, followed by Blockage (17.2%), Discharge (9.7%), Irritation (8.6%), Pain (4.3%) and finally using cotton buds as a normal habit (3.2%).

Investigating the participants' knowledge about if using cotton buds may cause hearing problems had yielded that 68.8% of them had responded negatively, while 31.2% answered " Yes".

knowledge related to the possibility of occurring any complications from using cotton buds to clean the ears had been investigated as well. Results had shown that 28% of the participants think that there is a complication for using cotton buds to clean ears, while 72% responded negatively and denied any complications (Table 2)

Participants were explored for their source of information about using cotton buds. Results had revealed that "Friends" were the most dominant source of information (57%), followed by family (19.4%), and to a less extent (18.3%). The lowest reported source of information was Media (5.3%) (Table 2).

Table 2: Study Sample Responses to The Questionnaire Items.

Reasons for using cotton buds for ear cleaning		
	Frequency (N)	Percentage (%)
Itching	53	57%
Irritation	8	8.6%
Blockage	16	17.2%
Pain	4	4.3%
discharge	9	9.7%
Normal habit	3	3.2%
Using cotton buds may cause hearing problems		
Yes	29	31.2%
No	64	68.8%
I think there is a complication from using cotton buds to clean ears		
Yes	26	28%
No	67	72%
My source of information on using cotton buds		
Friends	53	57%
Family	18	19.4%
Internet	17	18.3%
Media	5	5.3%

**4. Discussion:**

Using cotton buds inside ears had been extensively discussed by otolaryngologists because of the continuous evidence of their complications. The current study aimed to explore the awareness and knowledge levels of the Saudi community regarding the hazards associated with using cotton buds to clean the ears. Majority of the



studied sample was composed of males due to the lack of access of the researcher to females.

It had been reported by 57% of the participants that itching is the main reason for using cotton buds, that could be due to the easiness of using them and the availability of the cotton buds.

Moreover, it had been reported by 68.8% of the study participants that cotton buds may not cause hearing problems, which points to a significant lack of awareness and knowledge regarding the complications of using them.

Results were confirmed when 72% of the participants responded negatively that there is a complication of using cotton buds.

Lack of knowledge and awareness of the Saudi community about the hazards associated with using cotton buds could be referred to the lack of information they should receive about these hazards.

Investigating the source of information on using cotton buds had revealed that friends and family are the most common sources of information for the participants, which indicates a significant lack of the official awareness campaigns.

Findings of the study were consistent with Oladeji *et al.* (2015) study who found that there is a poor knowledge about the hazards associated with using cotton buds among the Nigerian community (Oladeji *et al.*, 2015).

Based on the previously introduced results, researchers would recommend that there is an urgent need to conduct ear health awareness campaigns and motivate the media and official authorities to intensify their efforts in educating people about the hazards associated with using cotton buds for ear cleaning.

Limitations of the study include the small sample size, the limited geographical area, and the simple data collection instrument. Therefore, the current study must be replicated to include more participants from different geographical areas in the Saudi community, representing various socio-economical and educational backgrounds.

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#### **Conflicts of Interest:**

There are no conflicts of interest among authors.

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