

## ORIGINAL ARTICLE

## KNOWLEDGE AND AWARENESS OF HAZARDS ASSOCIATED WITH THE USE OF COTTON BUDS IN SAUDI COMMUNITY

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## ABSTRACT

Cotton buds are commonly used for a variety of purposes such as 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 survey has been performed over a two weeks period on a sample composed of 93 individuals where a pre-designed questionnaire was filled by the participants. The results showed 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 show that there is a weakness in providing the correct information and guidelines about the risk of using cotton buds. It is concluded that Saudi community has poor awareness and knowledge levels regarding the hazards associated with the use of cotton buds. Therefore, it is recommended that intensive awareness campaigns are needed to educate people and increase their knowledge level.

**Keywords:** Awareness, cotton buds, knowledge, Saudi population.

## 1. INTRODUCTION

Ear cleaning is a part of human hygiene standard. Many types of research and studies have warned against practices that may hurt hearing<sup>1-4</sup>. Researchers from the American Academy of Otolaryngology<sup>2</sup> have introduced new guidelines for ear hygiene, which warns that the introduction of foreign devices or objects in the ear canal, such as cotton buds, causes hearing problems and increases the secretion of the ear wax. Experts have 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<sup>3,4</sup>.

Ear wax is a naturally made substance in the ear canal that protects the skin inside the ear against bacteria, fungi, insects, and water, and also lubricates and cleans the ear. The removal of the earwax from the auditory canal may result in the obstruction of

the canal and can also cause pain and hearing problems<sup>5</sup>. The use of ear-cleaning sticks is one of the main causes of perforation of the eardrum, which may require surgery<sup>2-4</sup>. It is advisable to avoid using them to clean the ear. Ears should only be cleaned from the outside. Some people 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 the containers of the cotton buds, which warn against using them "not suitable for cleaning ears", many people ignore these warnings<sup>6</sup>. 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. METHODS

A cross-sectional descriptive survey has been carried out over a two weeks period between

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September and October 2017 among a randomly selected sample that is composed of 93 adults. The study covered various social categories as the sample had been selected from various places (hospitals, universities, markets, etc.). The inclusion criteria of the study were the willingness of the individual to participate in the study and minimum age of over 18 years. Approvals were obtained officially from the responsible authorities to carry out the study, and the ethical considerations of the research committee were maintained during the study.

A semi-structured questionnaire was used as a data collection mechanism. It was composed of two parts; the demographic data part, and the part of the awareness and knowledge regarding the hazards associated with using cotton buds in cleaning the ears. The data were collected, tabulated, coded and analyzed using the Statistical Package of Social Sciences (SPSS) software

(version 20.0). Frequencies and percentages were calculated for the study participants' responses.

### 3. RESULTS

Results are shown in Table 1, which represents 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 than the females as they constituted 65.6% while females represented 34.4% (Table 1). According to the educational background of the participants, it has been observed that the undergraduate participants were the highest represented category as they constituted 63.4% of the total sample (Table 1).

**Table 1.** The demographic data of the participants

Characteristics		Frequency (N)	Percentage (%)
Age	18–24	13	14.0
	25–31	28	30.1
	31–37	37	39.8
	More than 37	15	16.1
Gender	Male	61	65.6
	Female	32	34.4
Education	Illiterate	4	4.3
	Secondary	21	22.6
	Undergraduate	59	63.4
	Postgraduate	9	9.7

Results presented in Table 2 represent the participants' responses to the questionnaire items. The main reason for using cotton buds for ear cleaning has been found to be itching. It is the main cause that forces the participants to use cotton buds as 57% of them had responded to it 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 resulted that about 69% of them are unaware of its harmful effects (Table 2). Knowledge related to

the possibility of getting any complications from using cotton buds to clean the ears have been investigated as well. Results indicated that 28% of the participants think that there is a complication for using cotton buds to clean ears while majority of them (72%) are unaware of any complications resulting from its use (Table 2).

Participants were further investigated for their source of information about using cotton buds (Table 2). The results revealed that friends are the main source of information (57%), followed by family (19.3%) and internet (18.3%). The lowest reported source of information has been found to be the media (5.4%).

**Table 2.** Responses of the participants to the questionnaire items

Question	Options	Frequency (N)	Percentage (%)
Reasons for using cotton buds for ear cleaning	Itching	53	57.0
	Irritation	8	8.6
	Blockage	16	17.2
	Pain	4	4.3
	Discharge	9	9.7
	Normal habit	3	3.2
Use of 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	28.0
	No	67	72.0
My source of information on using cotton buds	Friends	53	57.0
	Family	18	19.3
	Internet	17	18.3
	Media	5	5.4

#### 4. DISCUSSION

The use of cotton buds inside ears has been extensively discussed by otolaryngologists because of the continuous evidence of their complications<sup>1-6</sup>. 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 (Table 1). The results indicated 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 (Table 2). Moreover, it has been observed that the participants are unaware of the fact that cotton buds may cause hearing problems. This unawareness indicates that there is a significant lack of awareness and knowledge regarding the complications of using cotton buds. Lack of knowledge and awareness of the Saudi community about the hazards associated with using cotton buds is due to the lack of information they 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 (Table 2). The findings of this survey are similar to those reported by Oladeji et al.<sup>7</sup> who also observed that there is a poor knowledge about the hazards associated with using cotton buds among the Nigerian community.

#### 5. CONCLUSION

Based on the results of this study, it is recommended that there is an urgent need to conduct ear health awareness campaigns. It is also recommended that the media and official authorities should be motivated to intensify their efforts in educating people about the hazards associated with using cotton buds for ear cleaning. The main limitations of this study have been the small sample size and limited geographical area. Therefore, it is suggested that 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.

#### FUNDING

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#### CONFLICT OF INTEREST

Not declared.

#### ETHICAL APPROVAL

The research was performed after the approval of the Institutional Research and Ethics Committee.

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