

**ORIGINAL ARTICLE****KNOWLEDGE, ATTITUDE AND PRACTICE OF EAR CARE  
IN SAUDI COMMUNITY**

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**ABSTRACT**

Ear cleaning and removing the available wax out of them is one of the most widely spread habits among the different populations despite the harmful effect and consequences that could result. Ear wax is useful and protective for the human ears, and in normal cases it exists in healthy amounts inside the ear canal. Current study aims to investigate the knowledge, attitudes and practices of ear care among Saudi community members through studying a sample composed of 200 participants from both rural and urban populations. A self-administered questionnaire consisted of 15 items have been administered to the study groups. Findings of the study showed that there is a lack of knowledge and a high practice of incorrect habits, besides to the low awareness level among the rural population regarding ear care compared to the urban population. Study recommends that there is a need to perform more studies and increase the awareness of the community members towards the correct and healthy way of ear care.

**Keywords:** Attitude, awareness, knowledge, Saudi community.

**1. INTRODUCTION**

Ear wax is a normal, healthy substance with a number of functions. It cleans, lubricates and protects the lining of human ears by trapping dirt and repelling water. It usually breaks down naturally and falls out of the ears in tiny flakes<sup>1</sup>. A high proportion of the population, either educated or illiterate do not realize that the majority of ear disorders are due to the lack of hygiene maintenance of the ears. For instance, otitis externa is an acquired infection that affects individuals who practice swimming sports in non-clean water bodies<sup>2</sup>.

Ears are not only a hearing organ, but also play a key and crucial role in maintaining the body balance that is important to allow the individual to practice their daily activities. Still there is a lack of knowledge and awareness regarding the best care practices of human ears. Non-hygienic individual behaviors and habits could affect both human hearing ability and body balance, such as objects that could penetrate the tympanic membrane, allergy reactions, bacterial

and fungal infections, loud sounds from the surrounding environments, and using unhealthy tools to clean the ears<sup>3</sup>. The presence of a specific amount of human ear wax is useful for keeping and maintaining healthy ears, since it protects ears against the penetration of foreign objects and bodies, and does not allow them to move forward in the ear canal<sup>4</sup>. However, individuals still use several objects, such as cotton buds and pins, to carry out ear cleaning and discard the available ear wax. In several cases, these used objects and tools could be the risk factors and penetrate the tympanic membrane and perforate it. Moreover, the exposure to a loud noise in sudden situations, such as explosions or heavy construction works could lead to hearing loss. On the other hand, less sharp sounds such as loud music and sounds originating from the external environment participate in hearing loss when the individual is exposed to them over a long time period<sup>5-10</sup>.

Current study aims to investigate the awareness of Saudi community members regarding the unhygienic

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habits followed to clean the ears, and assess their knowledge, attitudes and practices.

## 2. METHODS

This is a descriptive cross sectional study that was performed over 45 days in the ENT clinic of King Abdulaziz Medical City. Study included both rural and urban categories. Study sample was composed of 200 participants who were distributed over two groups. Age of the participants was pre-determined between 18 and 65 years, so that they will be able to respond to the study questionnaire.

Two study groups, both rural and urban, were studied and compared together. The rural group represented the low socio-economical and educational category while the urban group represented the high socio-

economical and educational category.

A pre-designed questionnaire, containing Yes and No questions was distributed among the study participants and they were requested to read and answer the questions carefully.

Participants' responses represent their attitudes and knowledge, which were measured statistically by calculating the percentages of their answers. Harvested data were tabulated, organized, coded and exported to the Statistical Package for Social Sciences (SPSS) software (IBM Corporation V. 20.0). A chi-square analysis was also applied to detect the participant's knowledge, attitudes and practices level among the two studied groups.

**Table 1.** Responses of the study participants'

Item	Rural		Urban		P-value
	Yes %	No %	Yes %	No %	
I try to clean my ears with wet objects or sharp tools such as pins or pencils	87	13	9	91	0.216
I have a previous ear infection history	69	21	21	79	0.431
I have a previous history regarding an object that got stuck in my ear canal	38	62	0	100	0.107
I have experienced difficulties in my hearing ability	90	10	4	96	0.000
Normally I blow my nose roughly when I have cold or influenza	93	7	12	88	0.003
I normally use ear drops without doctor consultation when I have an ear pain	86	14	14	86	0.103
I use headsets when listening to loud audio (i.e. music)	34	66	23	77	0.000
I am exposed to noisy sounds from external sources such as the working environment	61	39	5	95	0.179
I am aware of the risk of the outer environment noise exposure	17	83	93	7	0.000
I have been exposed to sudden noise, such as gunfire	41	59	3	97	0.203
I have a medical condition, such as diabetes mellitus, hypertension, kidney disorders, or any other	44	56	9	91	0.000
I require medical consultation and help because of poor hearing ability	98	2	7	93	0.913
I use oils to clean my babies ears	15	85	27	73	0.001
I realize the importance of neonatal screening for hearing status	9	91	86	14	0.000
I clean my ears by the help of unspecialized individuals	75	25	13	87	0.936

### 3. RESULTS AND DISCUSSION

Results of the study are shown in Table 1 that represents the responses of the participants'. A brief demonstration regarding the correct and incorrect ear hygiene practices was also performed. Study questions were mainly oriented towards the participant's knowledge, attitudes and practices. Findings of the study showed that incorrect practices such as using objects to clean the ears canals, sudden or gradual exposure to loud noise, using ear drops randomly and blowing the nose roughly were highly encountered among the rural population higher than urban (Table 1). Knowledge regarding the harmful impact of using foreign objects or sharp tools have been found to be unsatisfactory among rural population but satisfactory among the urban.

The results of this study are consistent with the results of Hobson and Lavy<sup>5</sup>. According to their findings, 68% of the studied patients were found to be using wet or sharp objects to get rid of the wax in their ear canal<sup>5</sup>. Similarly, Nussinovitch et al.<sup>6</sup> have reported that using foreign objects to clean and remove the ear wax was the main causative agent of otitis externa among the examined children. In another study conducted by Kravitz et al.<sup>7</sup>, it was found that individuals were ignoring any cautions and warnings regarding using foreign objects to clean the ear canal.

The knowledge level regarding the harmful effects of exposure to noise has also been reported<sup>8</sup>. Listening to loud music and using headsets, are most common among the participants as they are unaware of the disastrous effects to their ears while they enjoy the loud music. These findings are similar to an another study which has demonstrated that using the headsets to listen music was the most common risk factor among urban population (82%) as compared to the rural people (22%)<sup>9</sup>.

Current study has revealed that the rural (17%) and urban (7%) populations are exposed to noisy sounds from outer sources such as working environment (Table 1). These findings indicate that they have a good knowledge level regarding the exposure to

external noisy conditions as a risk factor negatively affecting their hearing ability.

### 4. CONCLUSION

According to the previously demonstrated findings, current study suggests that it is highly recommended to educate people and increase their awareness level regarding the ear care habits, especially rural population. Moreover, policy makers in the Ministry of Health (MOH) are recommended to perform awareness campaigns regarding aural hygiene. These campaigns should target both rural and urban communities, however, concentrating more on rural and non-educated categories, and encourage healthcare professionals and institutions to participate efficiently in these campaign.

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### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### ETHICAL APPROVAL

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

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