

Assessment of Knowledge Attitude and Practice of Epistaxis in Saudi Population

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ABSTRACT

Background: epistaxis is acute hemorrhage from the nasopharynx or the nose. Epistaxis is a common otorhinolaryngology, and it ranges from mild to a severe, life-threatening rhinological emergency. First aid is performed to reduce mortality and morbidity of the emergency case until obtaining medical support.

The aim of the work: this study aimed to assess knowledge, attitude, and practice of first aid measures in Saudi population regarding epistaxis.

Patients and Methods: The present study included 1114 Saudi participants using a semi-modified questionnaire. The data was collected using excel sheet and analysis of data was performed by using SPSS.

Results: There were 751 (67.4%) of participants knew about epistaxis management, while 363 (32.6%) didn't know. The mean score \pm SD of KAP was 8.25 ± 1.9 , the correlation between KAP with gender (P value=0.001), marital status (P value=0.02) and education (P value=0.004) was significant.

Conclusion: knowledge of participants about epistaxis management was moderate, sex, marital status and education significantly affected KAP score.

Keywords: epistaxis, epistaxis first aids, KAP of epistaxis.

INTRODUCTION

Epistaxis is defined as the acute bleeding from the nasal cavity, nasopharynx or the nose ⁽¹⁾.

Bleeding from the nasal septum is responsible for the majority of epistaxis cases ⁽²⁾. Epistaxis is a common otorhinolaryngology emergency in ear, nose, and throat (ENT) and accident and emergency departments ^(3,4).

It acts as a significant workload in accident and emergency and otolaryngology departments; it usually causes anxiety for both patients and clinicians ⁽¹⁾. It ranges from mild bleeding to severe, life-threatening rhinological emergency which acts as a challenge to an otolaryngologist ⁽⁵⁾, where it may continue for more than an hour ⁽⁶⁾.

The nasal bleeding caused by either systemic or local factor, the systemic factors involved coagulopathy, blood disorders, the use of anticoagulant and arterial high blood pressure, while the local factors included upper airway infections, nasal allergies, the introduction of foreign bodies into the nasal cavity, trauma and septal perforation ⁽⁷⁾. The incidence of epistaxis was reported to range from 10% to 60 % of individuals ⁽⁸⁾.

6% of individuals were admitted to medical treatment to control the hemorrhage, while 60% of them had at least one episode of epistaxis throughout their lifetime and it was mentioned that males were more prone to experience epistaxis than females ⁽⁹⁾. Epistaxis is common among young adults and children, while it is rare among neonates, in the sixth decade it reaches its peak ⁽¹⁰⁾. The vast majority of patients that exposed to epistaxis can settle with standard first aid measures. However, some epistaxis episodes required hospital admission ⁽¹¹⁾. First aid is the emergency treatment of injury or illness to prevent deterioration of condition and to decrease pain until professional medical help reaches ⁽¹²⁾, to reduce mortality and morbidity of the emergency case ⁽¹³⁾ especially in persistent bleeding cases ⁽¹⁴⁾. This study aimed to assess the knowledge, attitude, and practice of epistaxis first aid measures in the Saudi population.

METHODS

Subjects and study design

This study included 1114 Saudi participants; the study was conducted in the period from June 2017 to September 2017. This study was performed using semi modified questionnaire to assess demographics, knowledge, attitude, and

practice of participants. We excluded uncompleted survey and any questionnaire done by the non-Saudi individual.

The study was approved by the Ethics Board of **King Faisal** University.

Statistical analysis

Data were analyzed using SPSS software version 16, the simple descriptive analysis in the form of means and standard deviations were calculated for numerical data. Qualitative data were described using numbers and percent distribution, and chi-square was used as a test of significance to detect an association between prevalence of epistaxis and studied variables. A total score was computed for twelve questions (either type of question) in the tool, the correct answer was given point one, and other responses were given zero. This score was then compared according to different variables to find the effect of age, sex, residence, and prevalence of epistaxis using student t-test and ANOVA tests with a significant level of less than 0.05.

RESULTS

The present study included 1114 Saudi individuals.

The vast majority of participants 748(67.1%) were less than 35 years old, 241 (21.6%) were in the age range of 35-50 years old, 102 (9.2%) in the age range 51-60 years and those older than 60 years were 23(2.1%). The females were more dominant 753 (67.6%) than males 361 (32.4%). Regarding marital status, there were 576 (51.7%) singles, 517 (46.4%) married and 21 (1.9%) divorced. The large majority of participants 1031 (92.54%) were from urban areas, while 83 (7.45%) only were from rural areas.

549 (49) had epistaxis, and 565 (51) didn't have it. Most of the participants had university education 793 (71.2%), followed by those with secondary education 234 (21%), then postgraduates and intermediate education 38 (3.4%) and 30 (2.7%) respectively.

Finally individuals with primary education and illiterate persons 15 (1.3%) and 4 (0.4%) respectively.

There were 751 (67.4%) of participants knew about epistaxis management, while 363 (32.6%) didn't know (**Figure 1**).

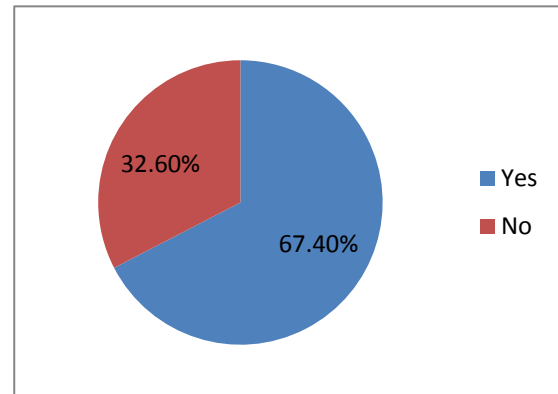


Fig1: knowledge of participants about epistaxis management

The individuals who reported their sources of knowledge were 283 (37.7%) and mentioned the source as self-learn, 210 (28%) cited the media and internet, 135 (18%) said that they knew from their parents and relatives, 87 (11.6%) identified from the physicians and 36 (4.8%) knew from nurses.

The first five questions investigated knowledge, then three questions investigated the practice, and the last three questions investigated attitude, the answers of participants are shown in **table 1**.

Table1: knowledge, practice, and attitude of participants about epistaxis

Questions	Answers	N	%
Knowledge			
Chronic diseases are a risk factor	Yes	170	15.3
	No	170	15.3
	Don't know	516	46.3
Some medicinal is risk factors	Yes	128	11.5
	No	128	11.5
	Don't know	461	41.4
Dealing with nose is a risk factor	Yes	793	71.2
	No	158	14.2
	Don't know	163	14.6
Environmental factors may be a cause	Yes	868	77.9
	No	57	5.1
	Don't know	189	17.0
Compressing nose is beneficial to stop bleeding	Yes	719	64.5
	No	127	11.4
	Don't know	268	24.1
Optimal position to stop bleeding	Leaning head forward	647	58.1
	Backwards	405	36.4
	Abdomen	2	.2
	Back	60	5.4
Practice			
Which part comprised	Bony	505	45.3
	Cartilage	609	54.7
Mechanism of breathing during epistaxis	By mouth up to epistaxis stop	945	84.8
	By nose	162	14.5
	Don't know	7	.6
What is should be done if bleeding doesn't stop	Refer to hospital	991	89.0
	Waiting up to bleeding stop	64	5.7
	Continue first line management	59	5.3
Attitudes			
Do you first line management against epistaxis is important	Yes	1027	92.2
	NO	36	3.2
	Don't know	51	4.6
Low awareness of population first line management against epistaxis	Yes	857	76.9
	NO	58	5.2
	Don't know	199	17.9
Who perform management	Any medical person knows epistaxis management	787	70.6
	ENT doctor only	327	29.4

The total score for all questions in the survey was estimated, and the mean score was 8.25 ± 1.9 . The correlation between demographics and the overall score was investigated; gender, marital status, and education were significant factors that affected the total score of knowledge, attitude, and practice (KAP) (Table 2).

Table2: the correlation between demographics and total score

Demographics (N)		Mean ±SD	P value
Age	21> years (209)	8.12±1.61	0.05
	21-34 (539)	8.43±1.94	
	35-50 (241)	8.09±2.05	
	51-60 (102)	7.99±1.83	
	>60 years (23)	8.04±1.52	
Sex	Females (753)	8.39±1.81	0.001*
	Males (361)	7.97±2.05	
Marital status	Single (576)	8.38±1.88	0.029*
	Married (517)	8.12±1.90	
	Divorced (21)	7.66±2.19	
Residence	Rural (83)	7.96±2.44	0.147
	Urban (1031)	8.27±1.85	
Having epistaxis	Yes (549)	8.23±1.87	0.728
	No (565)	8.27±1.93	
Education level	Illiterate (4)	8.00±2.44	0.004*
	Primary (15)	8.46±1.88	
	Intermediate (30)	7.36±1.93	
	Secondary (234)	7.94±1.84	
	University (793)	8.38±1.91	
	Postgraduate (38)	8.05±1.67	

*P-value; significant

DISCUSSION

Our study was established to assess KAP of Saudi population toward epistaxis first aids; there was no previous study focused on population KAP regarding epistaxis first aids. The current study included 1114 individuals of the Saudi population. The large majority of participants were youth (67.1%) and their ages didn't exceed 35 years old, whereas the least percent of participants had age older than 60 years.

Females were dominant in this study than males and the large majority of individuals were singles. 92.54% of participants were from urban areas and 71.2% had a university education. Regarding knowledge of participants high percent, 67.4% of participants knew about epistaxis first aids management. The most common source of information about epistaxis management for individuals was self-learning which represented 37.7%, this can be explained by the fact that most of the participants had a university education and came from urban areas. There were 5 questions to investigate the knowledge of individuals; the first

asked if the chronic disease was a risk factor, most of the participants 46.3% didn't know.

Also, the majority of participants (41.4%) didn't know if some medicinal were risk factors or not. There were 71.2% thought that dealing with nose was a risk factor and 77.9% thought that environmental factors may be a cause of epistaxis. High percent 64.5% thought that compressing nose was beneficial to stop bleeding and the optimal position to stop bleeding was leaning head forward (58.1%). In the practice part, 54.7% said that cartilage was the part comprised, 84.8% said that the mechanism of breathing during epistaxis should be by mouth to stop epistaxis, 89 % of individuals said that referring to the hospital is the solution to stop bleeding if the bleeding didn't stop. In the attitude part; 92.2% confirmed that first aids management against epistaxis was important, 76.9% thought that there was low awareness about first aid management against epistaxis in the Saudi population, 70.6% of individuals suggested that any medical person know epistaxis management can perform first

aids. The present study revealed that age was a weak factor to affect the total score of KAP (P-value=0.05) and being epistaxis patient or not was a factor that can affect the total score of KAP (p-value=0.7).

Surprisingly, the area of residence was not a factor to affect KAP, where there was no significant difference in the total score of KAP regarding residence (P-value=0.1), most of the participants were from the urban area, however, the mean score for them was slightly higher than those from a rural area. In the current study, gender was a significant factor to influence the total score of KAP (P-value=0.001), females had higher mean score than males.

We found that singles had higher mean score than participants of another marital status, there was a significant difference regarding marital status (P-value=0.02), KAP total score was significantly affected by different marital status. The present study showed that education level was a significant factor to affect the total score of KAP (p-value=0.004). The present study had strong points; it was the first Saudi study to evaluate epistaxis first aids KAP of the Saudi population, the sample size was large, limitation of this study was that we couldn't compare the results of this study with other studies as there was no study performed before on this subject between population.

CONCLUSION

In this study, we conclude that knowledge about epistaxis was good between Saudi populations and self-learn was the main source of information. KAP epistaxis mean score was good, and several factors affected it including gender, marital status, and education, while age was slightly affected it.

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