



Prevalence and causes of ENT diseases evidence in Pakistan

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ABSTRACT:

Background: ENT infections are becoming a common issue for the people around the globe. this study aims to explain the prevalence of ENT issues during January to November 2020 in south of Saudi Arabia.

Methods: Author employed the simplified frequency approach for case management and demography moreover the prevalence of ENT issues in general and ear, nose, and throat. This study is based on quantitative approach where data is being gathered through primary sources.

Results: Findings of the research confirm that roat infections are more common than of ear and nose moreover the prevalence of ENT issues are at higher rate that is around 54%. There are four main reasons which often causes ENT problems.

Conclusion: Results of this study are very much significant for general doctors, ENT specialist and clinical staff.

KEYWORDS: Diseases, Environment, ENT Problems, Physical Illness, Saudi Arabia.

INTRODUCTION

Ears, nose, and the throat have separate but related functions and are located near each other. The nose and ears are known as sensory organs. These organs are necessary for the senses of smell, balance, and hearing. The nose also plays an important function in humidifying air we breathe and works to prevent microorganisms from entering the body. The throat provides the passage for air to reach the lungs and also provides the passage for food and water to enter in human digestive tract. Diseases of ear, nose and throat (ENT) influence the working of grown-ups just as kids, frequently with critical debilitation of the day-by-day life of influenced patients [1].

Around 0.5 percent of all upper respiratory tract infections are complicated by sinusitis, the incidence in UK of acute sinusitis ranges from 15 to 40 episodes per 1000 patients per year and it is the second most common infectious disease seen by general physicians According to WHO 42 million children is suffering from hearing disability, most commonest is otitis media [5-6]

Each year around 2100 people die due to complications of otitis media Otitis-media, which is currently known to be the most widely recognized youth contamination, drives yearly to the passing of more than 50,000 kids under 5 years [5]. In different cases nasal conditions might be upsetting, as on account of nasal myiasis/worms in the nose [6].

In many nations in the creating scene the quantity of otolaryngologists is immaterial, while the issue is confounded by the way that there is no preparation for general wellbeing otolaryngology and other ENT-related otolaryngology faculty [2, 4]. This absence of prepared faculty is of specific worry in African nations on the grounds that the commonness paces of a portion of the ENT sickness, for example, persistent otitis-media is just about as high as 65% [7].

Dysfunction of the ears, nose, or throat can dramatically affect the quality of human life and in some cases may constitute a major medical emergency. There are different occupations increase the risk of ENT diseases: ENT symptoms are common in the population, with differences based on age, gender, and occupation; however, the majority of those affected handle their ENT issues without seeking medical help, due to the prevalence of ear, nose, and throat diseases and their complications. A total of 58 percent of adult patients have ear problems, with 34.5 percent having hearing loss.[1-8]

OBJECTIVES

The aim of this study is to asses "The prevalence of ear, nose and throat problems in the community.



RESEARCH METHODS

This study is conducted during the period from January to November 2020 to demonstrate the severity of the ENT diseases these days in Pakistan. This study is based on quantitative approach where data is being gathered through primary sources. data collected from patients and visitors in government and private hospitals in Pakistan. The unit of analysis are particularly patients and hospital visitors. Ethical approval from the respondents were also obtained.

The data was collected through structured questionnaire and developed in both English and urdu languages. Moreover, a random sampling technique was preferred. This questionnaire types are preferred due to the prevalence estimation of ENT disease. A specialized team headed by an ENT specialist and supported by social workers surveyed the hospitals for data collection and other relevant information about patients. The primary data is gathered and entered into SPSS for descriptive statistics then comma delineated file used in Smart- PLS for PLS-SEM analysis.

RESULTS

All the respondents’ detail were collected through questionnaire; the data then entered into Microsoft Excel and SPSS software for further prevalence estimation. Moreover, the descriptive statistics were performed and reported in **Table 2**. The other details regarding prevalence and frequency are illustrated in **Table 1**.

Prevalence can be explained as a portion of population who share a specific character or infected in each time period or place. The estimation of prevalence brings the percentage of infected person in total population in a particular area. However, the whole prevalence concept is based on few assumptions on which the data were collected. Therefore, the results might strictly follow the assumptions. In more formal manner, researcher choose a certain portion of population (sample) they often want to emphasize. Thus, prevalence is a number of patients in sample who have ENT issues. The prevalence can be estimated as follows in *equation 1*.

Table 1. Demographics and Frequency details

Questions

1	Do you have any ENT problem?	Yes	No							
	<i>Percentage</i>	354 (35%)	658 (65%)							
2	Which infection do you have?	Ear	Nose	Throat						
	<i>Percentage</i>	314 (31.02%)	336 (33.20%)	359 (35.47%)						
3	Which is the most common ENT problem in Saudi Arabia?	Tonsillitis	Ear Infection	Sinus Infection	Allergies	Sleep Apnea	Hearing Loss	Vertigo	Acid Reflux	Cancer
	<i>Percentage</i>	107 (10.57%)	101 (9.98%)	120 (11.86%)	107 (10.57%)	114 (11.26%)	108 (10.67%)	118 (11.66%)	116 (11.46%)	111 (11.66%)
4	Which is the main reasons of ENT diseases spread in Saudi Arabia?	Environment Factors in the Home		Weather Conditions	Physical Illness					
	<i>Percentage</i>	328 (32.41%)	30 (2.96%)	317 (31.32%)	334 (33%)					
5	Which environmental factors is more likely to become the reason of ENT diseases?	Chemicals	Pollen	Dust	Pollution					
	<i>Percentage</i>	228 (22.52%)	265 (26.18%)	239 (23.61%)	277 (27.37%)					



6	Which factor in the home is more likely to become the reason of ENT diseases?	Animal dander	Bacteria	Dust Mites	Mold
	Percentage	251 (24.80%)	238 (23.51%)	249 (24.60%)	271 (26.77%)
7	Which weather factor is more likely to become the reason of ENT diseases?	Onset of Cold Weather	Windy weather kicks up dust and pollen	Changes in season	
	Percentage	357 (35.27%)	516 (50.98%)	136 (13.43%)	
8	Which physical illness factors is more likely to become the reason of ENT diseases?	Nasal Polyps	Glue ear	Viruses	Common cold
	Percentage	236 (23.32%)	266 (26.28%)	282 (27.86%)	224 (22.13%)
9	Severe Patients or Non-Severe Patients	Non-Severe			
	Percentage	620 (61.26%)	389 (38.43%)		

Table 2. Descriptive Statistics

Constructs	Mean	Median	Min	Max	Standard Deviation	Kurtosis	Skewness	
Environmental Factors	1	3.841	4	1	5	1.0365	0.314	-0.890
Home Factors	2	3.749	4	1	5	1.027	0.095	-0.767
Weather Factors	3	3.719	4	1	5	1.092	-0.358	-0.628
Physical Illness	4	3.933	4	1	5	1.070	0.496	-1.037
ENT Problems	5	3.865	4	1	5	1.070	0.392	-0.960

1. Results and Discussion

Prevalence Analysis

In this study, author had focused on the prevalence of ENT diseases in the south of Saudi Arabia. Out of 1100 respondents, 65% patients were involved in ENT issue as illustrated in Fig. 1. This demonstrates nearly 53.80% prevalence of ENT diseases in south of Saudi Arabia. The rest of other respondents were relatives and friends of patients stayed in hospitals. Furthermore, Fig. 2 showed that diseases of throat is more common than that of ear or nose in Saudi Arabia. Interestingly, the prevalence of throat disease (35.47%) is higher than of ear and nose issues 31.02% and 33.20% respectively. Our study findings are match able with other Saudi Arabia studies stated that The students were between the ages of 18 and 25, with a combined mean age of 23 years for both sexes, and the majority of the participants were females (55.0 percent). We found a 257 percent prevalence of ENT problems among them (91,7). Furthermore, we discovered that the majority of respondents just had a throat infection (54.7 percent).

Inline with our study other study stated that Persistent nasal discharge was the most common ENT diseases , according to an international longitudinal study of more than 11000 people aged 20–44 years old from 14 countries in Europe and America.

There are 4 reasons why people get infected in terms of ENT: the environmental, weather changes and physical illness are the biggest source in sample which are the usual reason behind any ENT infection or issue in south of Saudi Arabia as portrayed in Fig. 7.



DO YOU HAVE ANY ENT PROBLEM ?

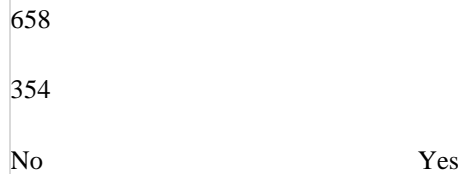


Fig. 1

WHICH INFECTION DO YOU HAVE ?

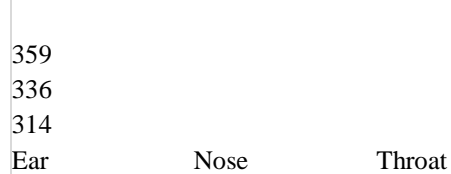


Fig. 2

WHICH FACTOR IN THE HOME IS MORE LIKELY TO BECOME THE REASON OF ENT DISEASES ?

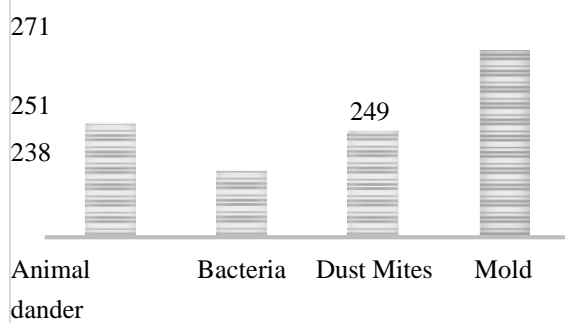


Fig. 3

SEVERE PATIENTS OR NON-SEVERE PATIENTS

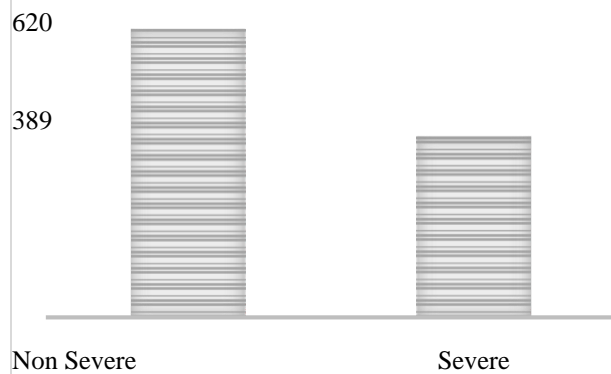


Fig. 4

WHICH ENVIRONMENTAL FACTORS IS MORE LIKELY TO BECOME THE REASON OF ENT DISEASES ?

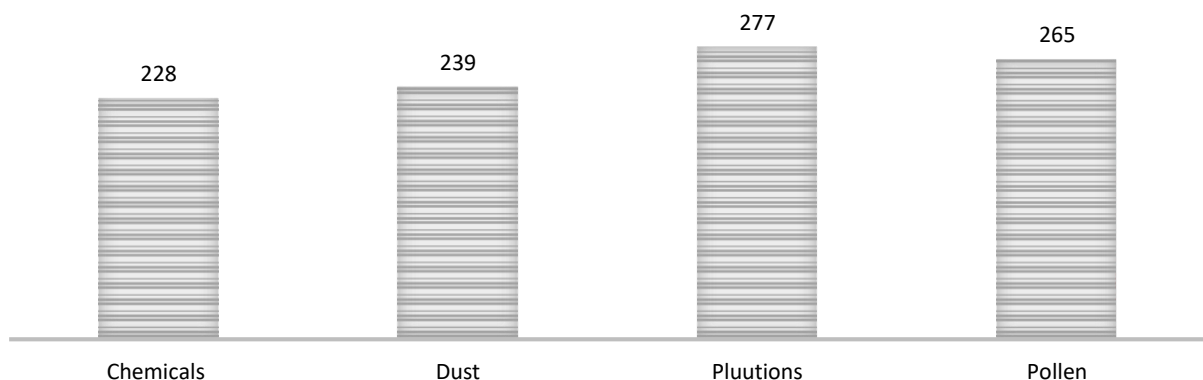


Fig. 5

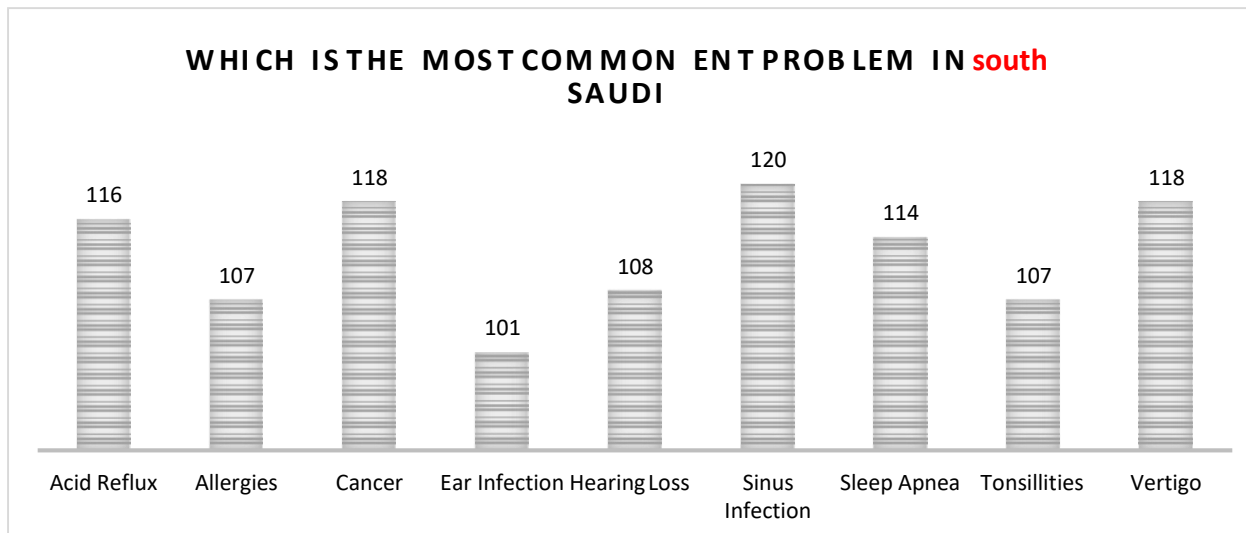


Fig. 6

The analysis was not only limited to these issues however author have analyzed what are the main diseases or infections these sources often spread in the public during this study.

Table 3. Correlation values

ENT Problems	Environmental Factors	Home Factors	Physical Illness Factors	Weather Factors
ENT Problems				
Environmental Factors	0.911			
Home Factors	0.864	0.949		
Physical Illness Factors	0.978	0.867	0.813	
Weather Factors	0.917	0.889	0.966	0.000

The second aim of measurement model is the assessment of discriminant validity. Discriminant validity is usually measured through Fornell & Larcker criterion, cross loadings and HTMT ratio for correlation between constructs. Therefore, this research considered two widely used criterion for discriminant validity. In initial step, the discriminant validity is measured through Fornell & Larcker ratio where all diagonal values are greater than of beneath values which satisfied the higher discriminant validity of constructs.

CONCLUSION

It is observed that ENT problems occur frequently in our community. There are different factors that can causes ENT problems. When we talk about the factors then the role of weather changes and weather conditions on ENT infections in south Saudi Arabia is important factor as the weather plays critical role and people often get infected during the cold weather however the biggest factor in weather is the high-speed wind which often puts up the dust and pollen in air and people often inhaled it causing infections. Physical illness is the fourth main factors which produces a lots of ENT infections. Viruses' infections, glue ear, nasal allergy and common cold are the major aspects of the Physical illness. Community awareness' regarding common Ear, Nose and Throat could play a vital role in the prevention of ENT disease. Health check of community people should be done frequently.



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