Awareness of the Population in ALBaha region about Sore Throat

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Abstract: The purpose of the present study is the investigation of the degree of awareness of the population in ALBaha region about sore throat. The population of the study consisted of residents of ALBaha region, Saudi Arabia; the sample included (110) individuals selected randomly. In order to achieve the main research objective, the study adopted a descriptive research design, and data were collected using questionnaire. The main finding of the study is that the degree of awareness of the population in ALBaha region about sore throat is low. This finding contradicts those obtained by similar studies that targeted the Saudi context. The finding may be attributable to that levels of awareness on sore throat in the Saudi society have increased in recent years due to increased attention by the Saudi Ministry of Health to the importance of launching health awareness campaigns. Recommendations of the study include that researchers conduct qualitative studies on perceptions of Saudis' in various regions of the country on the effectiveness of commonly implemented methods of sore throat management and that local health institutions in ALBaha region organize all-year-round programs for raising awareness on how to prevent and treat sore throat at home.

Keywords: awareness – general population – ALBaha – Saudi Arabia - sore throat – prevention – treatment.

Introduction: Sore throat (acute pharyngitis) is a globally common health problem and is one of the most frequently reported complaints among adults and children seeking healthcare services (Coutinho et al., 2021). It manifests in the form of inflammation of nasopharynx, pharynx, and tonsillar tissues. Sore throat is seasonal in nature, with numbers of cases increasing significantly between later winter and early spring (Sykes et al., 2020). Most of the cases of sore throat are caused by viral or bacterial infection, especially the former, but other factors can cause it as well, such as allergies, reflux, and tumors (Saat et al., 2022). Sore throat can develop into a chronic medical condition. It is defined as chronic if its symptoms persist for a period of time longer than 14 days, during which non-infectious factors are more likely to be the causes (Krüger et al., 2021).

Dealing with the sore throat problem, whether by treatment or prevention, is strongly reliant on awareness that the general population has on the problem, its potential consequences, and factors that influence it, among other things.

Differently put, regardless of how advanced available medical care is, it cannot achieve desirable outcomes if the general population does not have adequate awareness about health problems, including sore throat. Therefore, efforts for the promotion of health, including those aiming at reducing the prevalence of diseases associated with sore throat, should focus largely, if not primarily, on raising awareness.

Statement of the Problem: Sore throat is a common medical condition among children and adults alike. It is caused by a variety of factors, and its severity ranges from mild to potentially life-threatening. Therefore, it is important to implement appropriate procedures, not only for treating the condition, but also for prevention against it. This requires that people have adequate knowledge and awareness of the nature of sore throat, its effects, and the factors that influence it.

Although awareness of sore throat is an important aspect of health awareness, its levels in contemporary societies are significantly lower than those necessary for improving the management of sore throat both as a private and public health problem. Several studies discussed the problem of low levels of awareness about sore throat in a variety of contexts. For example, the study of Essack et al. (2023) explored consumer conversations on social networking platforms in eight countries (Germany, Italy, Spain, Mexico, Romania, Russia, Brazil, and Thailand) on the use of antibiotics and antimicrobial resistance, with focus on sore throat and the context of the COVID-19 pandemic. Findings of the study show that misconceptions on sore throat are common in all of the aforementioned countries, particularly the belief that antibiotics are highly effective medications that can treat all types of sore throat conditions. Other studies that reported similar findings include that by Hailu et al. (2020), which reported very low levels of awareness on the causes and effects of sore throat in northern Ethiopia, and that by Sans et al. (2024), which also revealed low levels of awareness on sore throat, particularly its potential serious consequences and the proper management of its symptoms. Thus, the aforementioned studies indicate that low levels of awareness about sore throat are a common problem across various international contexts.

Recent studies also investigated the levels of awareness about sore throat in Saudi Arabia. However, attention to the Saudi context has been significantly limited. One of very few studies to examine levels of awareness about sore throat in the Saudi context, in specific, is that by Aloofy et al. (2017), which examined knowledge and practice of sore throat management among patients who visit the primary care clinic in King Khalid University Hospital in Riyadh, Saudi Arabia. The study's findings show significantly low levels about proper sore throat management among participants. Another study that presented findings on levels of awareness about sore throat in the Saudi society is that by van der Velden et al. (2020), which investigated patients' attitudes related to health-seeking behavior and self-management of sore throat in 13 countries, which are Australia, Brazil, China, France, Germany, Italy, the Philippines, Russia, South Africa, Thailand, the UK, the USA and Saudi Arabia. From among this diverse sample, Saudis participants had the highest levels of exaggerated beliefs on the impacts of antibiotics on managing sore throat, as they overwhelmingly believed that antibiotics are effective, and a majority of them preferred the use of antibiotics over considering any other, potentially more effective, alternative.

The preceding discussion highlights the research problem that the present study aims to address. There is a significant research gap on levels of awareness about sore throat in Saudi Arabia. The significance of this gap largely stems from the dearth of relevant research since the outbreak of the COVID-19 pandemic, which might have had significant impacts on Saudis' awareness about sore throat. Thus, there are virtually no significant research contributions focusing on the contemporary status quo of awareness about sore throat in the Saudi context. Therefore, the present study is interested in contributing to filling this gap by examining awareness of the population about sore throat in Saudi Arabia, with focus on the specific context of ALBaha region.

Research Question: In the light of the research problem, the study focuses on tackling the main question: What is the degree of awareness of the population in ALBaha region about sore throat?

Research Objective: The present study bases its main objective on its main research question. Thus, the study's main objective is as follows: To investigate the degree of awareness of the population in ALBaha region about sore throat.

Significance of the Study: In the light of the statement of the problem above, it can be stated that the significance of the present study stems from that it investigates a topic that has received little attention in recent research. Although awareness about sore throat as a topic has been attracting growing research attention, this has not been evident in the Saudi context, especially local contexts, such as that of ALBaha region. Therefore, the present study could be a valuable contribution to both theory and practice. The theoretical and practical significance of the study can be summed up in the following points:

Theoretical Significance: The study may contribute to filling the significant research gap on the status quo and levels of community awareness about sore throat in Saudi Arabia, particularly ALBaha region.

- Findings of the study could be used as a starting point for conducting further research on awareness about sore throat in Arab contexts.

Practical Significance :The study may present practical recommendations that the Saudi government can benefit from in devising new policies and strategies that can contribute to raising

awareness on various aspects of the health problem of sore throat.

- Findings of the study could be of benefit for healthcare institutions in Saudi Arabia, including in ALBaha region, in responding to and dealing with cases of patients who have low levels of awareness about sore throat.

Definition of Sore Throat: Sore throat is an unpleasant and painful feeling of discomfort, itching, and burning in different parts of the pharynx (nasopharynx, laryngopharynx, and oropharynx), which is a result of either infectious or non-infectious inflammation in the aforementioned parts (Propisnova et al., 2023, 521).

Another definition of sore throat is that it is pain caused by inflammation of tissues located behind throat (Weng et al., 2021, 152).

It can also be defined as irritation, itchiness, or pain in the throat (Syful Islam, 12).

Causes of Sore Throat : Not only do cases of sore throat differ in terms of symptoms, but they also differ in terms of causes. Below is a discussion of the most prominent causes of sore throat.

Viral Infection :Viral infection is the cause of most documented cases of sore throat, with approximately 70-90% of cases being caused by one the viruses associated with sore throat (Propisnova et al., 2023). Examples of viral infections include colds, flu, chicken pox, measles, croup, whooping cough, and mononucleosis. Mononucleosis is particularly noticed to have the longest duration of the sore throat symptom, in addition to other symptoms, such as extreme fatigue, swollen glands in the armpits, neck, and groin, headache, chills, fever, and, in more severe cases, serious breathing difficulties (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Bacterial Infection: Bacterial infection has been found to be the cause of approximately 15% of cases of infections associated with sore throat (Propisnova et al., 2023). The bacterial pathogen resulting in most of bacterial infections causing sore throat is Group A β-hemolytic streptococcus, which is estimated to cause approximately 20% of cases bacterial infections (Lown et al., 2023). Streptococcus bacteria are the main cause of strep throat. This infection is normally associated with conditions such as pneumonia, tonsillitis, scarlet fever, ear infections, and sinusitis. Strep throat is associated with symptoms such as fever, patches on the throat, and tender or swollen lymph glands in the neck. Children with strep throat infections may have additional symptoms such as stomach pain and headache (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Epiglottitis : Epiglottitis is considered the most dangerous of all causes of sore throat. It causes severe swelling that closes the airway and requires immediate emergency medical intervention. Signs that predict epiglottitis infection include experiencing extreme pain when swallowing, significant breathing difficulties, and muffledness of speech.

A notable issue in responding to epiglottitis infection is that it cannot be identified by merely looking in the patient's mouth (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Allergies : Allergies can cause sore throat. Allergies associated with sore throat include those toward house dust, animal dander, molds, and pollens (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Irritation: Certain types of irritation can cause sore throat. Examples of such irritations include those caused by chemical exposure, car exhaust, pollutants, chronic stuffy nose, dehydration, dry heat, and straining one's voice (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Reflux: Reflux is a process in which the contents in the stomach are regurgitated back into the throat. This issue often occurs after waking up in the morning. The reflux affecting the throat is known as laryngopharyngeal reflux (LPR) (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Tumors: Tumors of the tongue, throat, and larynx can lead to sore throat, and pain can extend reaching the ear. Other symptoms caused by tumors include noisy breathing, difficulty in swallowing, hoarseness, unexplained weight loss, a lump in the neck, and/or presence of blood in the phlegm or saliva (American Academy of Otolaryngology–Head and Neck Surgery Foundation, 2019).

Pathogens and Symptoms Associated with Sore Throat Infections :

Sore throat is caused by a variety of conditions. These conditions, in turn, are caused by various pathogens, which are classified into three main categories: viruses, bacteria, and fungi. Below is a brief discussion of pathogens causing sore throat as well as symptoms that they cause.

Viruses: Table 1 presents a list of virus groups causing the sore throat problem. However, sore throat is not the only sign indicating infection with these viruses, as there are other indicative clinical manifestations. Table 1 below presents a list of the most prominent viruses causing sore throat and their associated clinical manifestations.

Table 1. Clinical manifestations of viruses causing sore throat and their associated clinical manifestations (Claassen, 2012).

Virus Sub-groups	Main Clinical Manifestations
Rhinovirus	Common cold
Coronavirus	
Adenovirus	Pharyngoconjunctival fever
Influenza virus	Influenza
Para-influenza virus	Cold, croup
Coxsackie virus	Herpangina, hand‑foot‑mouth disease
Herpes simplex virus	Gingivostomatitis (primary infection)
Epstein-Barr virus	Infectious mononucleosis
Cytomegalovirus	Mononucleosis-like syndrome
Human immunodeficiency virus	Acute (primary) infection syndrome

Bacteria: Table 2 presents a list of bacteria groups causing the sore throat problem. However, sore throat is not the only sign indicating infection with these bacteria, as there are other indicative clinical manifestations. Table 2 below presents a list of the most prominent bacteria causing sore throat and their associated clinical manifestations.

Table 2. Clinical manifestations of bacteria causing sore throat and their associated clinical manifestations (Claassen, 2012)

Bacteria Sub-groups	Main Clinical Manifestations
Group A streptococci	Pharyngitis, scarlet fever
Group C and group G streptococci	Pharyngitis
Mixed anaerobes	Vincent's angina (necrotising gingivostomatitis)
Fusobacterium necrophorum	Lemierre's syndrome (septic thrombophlebitis of the internal jugular vein)
Arcanobacterium haemolyticum	Pharyngitis, scarlatiniform rash
Neisseria gonorrhoeae	Pharyngitis
Treponema pallidum	Secondary syphilis
Francisella tularensis	Pharyngeal tularemia
Corynebacterium diphtheria	Diphtheria
Yersinia enterocolitica	Pharyngitis, enterocolitis
Yersinia pestis	Plague
Mycoplasma pneumoniae	Bronchitis, pneumonia
Chlamydophila pneumoniae	
Chlamydophila psittaci psittacosis	

Fungi: Fungi are not associated with the same level of risk of causing sore throat as viruses and bacteria. This is evident in the limited number of fungi causing this health problem. Table 3 illustrates the main clinical manifestations accompanying sore throat caused by fungi.

Table 3. The main clinical manifestations accompanying sore throat caused by fungi (Sykes et al., 2020).

Fungi Sub-groups	Main Clinical Manifestations
Candida albicans	Loss of taste Mouth numbness Oropharyngeal white Curdlike plaques Oropharyngeal smooth Red patches Angular cheilitis

The appearance of clinical manifestations associated with sore throat varies depending on the pathogen causing the problem. The distinctiveness of appearance can be indicative of whether the patient's sore throat problem is caused by a type of viruses, bacteria, or fungi. Figure 1 illustrates the differences in the appearance of symptoms among patients with sore throat problems caused by viruses, bacteria, and fungi.

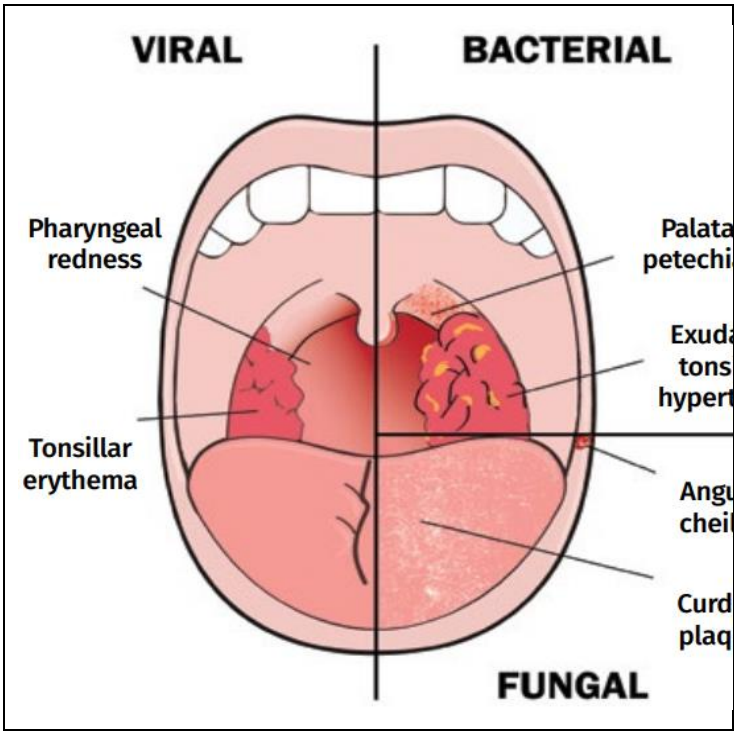

Figure 1. Differences in the appearance of symptoms among patients with sore throat problems caused by viruses, bacteria, and fungi (Sykes et al., 2020).

Assessment of Patients with Sore Throat :

Assessment of the conditions of patients with sore throat are recommended to be performed based on the FeverPAIN or Centor criteria. Both sets of criteria focus on specific symptoms such as presence/absence of cough, tonsil state, and fever. In general, higher scores are associated with more severe symptoms and indicate that an infection is bacterial (Propisnova et al, 2023). Table 4 below compares the criteria of both assessment systems.

Table 4. Comparison of the FeverPAIN and Centor criteria (Propisnova et al, 2023).

FeverPAIN criteria	Centor criteria
· Fever (during the previous 24 hours) · Purulence (pus on tonsils) · Attend rapidly (within 3 days after onset of symptoms) · Severely inflamed tonsils · No cough or coryza (inflammation of mucus membranes in the nose)	· Tonsillar exudate · Tender anterior cervical lymphadenopathy or lymphadenitis · History of fever (over 38°C) · Absence of cough
Each of the FeverPAIN criteria scores 1 point (maximum score of 5)	Each of the Centor criteria scores 1 point (maximum score of 4)
! A score of 0 or 1 is thought to be associated with a 13–18% likelihood of isolating streptococcus. ! A score of 2 or 3 is thought to be associated with a 34–40% likelihood of isolating streptococcus. ! A score of 4 or 5 is thought to be associated with a 62–65% likelihood of isolating streptococcus.	! A score of 0, 1, or 2 is thought to be associated with a 3–17% likelihood of isolating streptococcus. ! A score of 3 or 4 is thought to be associated with a 32–56% likelihood of isolating streptococcus.

Management of Sore Throat:

There are various ways of managing the sore throat problem. Not only is it important to manage actual cases with effective treatments, but it is also important to implement proper prevention methods. Below is a discussion of the most prominent methods for management of sore throat.

Treatment :

Antibiotics:

Antibiotics can be used as a treatment for sore throat. However, the decision for using antibiotics is reliant on the assessment of the severity of the patient's case. The UK's National Institute for Health and Care Excellence (NICE) recommends that such assessments be based on the FeverPAIN or Centor criteria. Paths of assessment and intervention recommended by the NICE are outlined and illustrated in Figure 2.

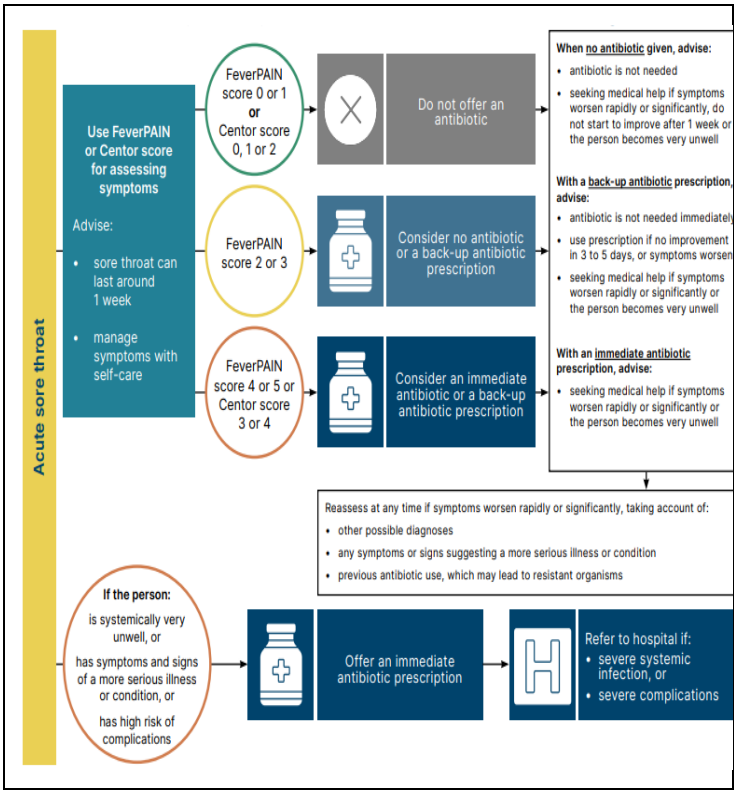

Figure 2. Paths of assessment and intervention, as recommended by the NICE (National Institute for Health and Care Excellence, 2023).

Lifestyle Changes:

A patient with sore throat can make some lifestyle changes to improve the relief of symptoms. Examples of such lifestyle include the following (Welsh Medicines Advice Service, 2023):

- Resting.
- Drinking plenty of fluids, especially water.
- Eating soft and cool foods (drinking hot drinks can worsen pain).
- Staying home if the patient's temperature is high or if they do not feel well enough to do everyday activities.
- Avoiding smoking or being in places where there is a lot of smoke.

At-home Remedies:

Certain at-home remedies can be used for alleviating the pain resulting from sore throat (Welsh Medicines Advice Service, 2023):

- Sucking on medicated throat lozenges. However, it is important to ask a pharmacist in order to make sure that lozenges are suitable to the patient's case.
- Sucking on hard sweets, ice lollies, or ice cubes.
- Gargling then spitting out salty water. The recommended amounts are half a teaspoon of salt dissolved in a glass of warm water.

Prevention:

Several precautions can be implemented to prevent against the emergence of the sore throat problem. Examples of such precautions include the following (Morden, 2014):

- Washing hands or using hand sanitizers can help in preventing infections that lead to sore throat.
- Avoidance of close contact with people showing symptoms associated with illnesses that lead to sore throat. Examples of such symptoms include having sore throat, coughing, and sneezing.
- Avoidance of any situation in which the saliva of a person infected with an illness associated with sore throat can be transferred. Examples of such situations include handling objects contaminated with infected saliva (e.g., cups).
- Adoption of a healthy lifestyle. Examples of the components of such a lifestyle include following a well-balance diet, drinking a lot of water, exercising regularly, and having adequate sleep.

The preceding discussion highlights the significance of proper management of sore throat, whether by treatment or prevention. Due to the reliance in implementing the aforementioned methods of management on the patient's initiative and behaviors, raising awareness about sore throat among the general population is of paramount significance for reducing the prevalence and negative impacts of the sore throat problem in society.

Importance of Awareness about Sore Throat:

One of the main reasons for the importance of awareness about sore throat is that strong awareness is associated with more proper management of this health problem. For example, according to Aloofy et al. (2017), low awareness about sore throat is associated with injudicious use of antibiotics. In fact, a significant proportion of prescriptions of antibiotics is inappropriate and avoidable. This issue is particularly evident in sore throat management among children; in such cases, antibiotics tend to be easily suggested and preferred for managing the symptoms.

The importance of awareness on sore throat has stimulated interest in the topic in the Saudi context. According to findings obtained by the study of Mohammed et al. (2024), which investigated levels of knowledge, attitudes, and practices related to rheumatic heart disease and rheumatic fever among parents in ALBaha region in Saudi Arabia, levels of awareness on sore throat were found to be low. Although sore throat was not the main issue of focus for the study, it an important topic for discussion nonetheless because it is relationship to rheumatic

fever, which is a relationship that participants had low awareness about.

From the preceding discussion, it can be stated that awareness is important for managing the sore throat problem. However, low awareness about the problems is still a common issue that needs for be addresses. This issue is especially noticed in the Saudi context. Therefore, awareness on sore throat in the Saudi context, including in ALBaha region, is an issue that warrants further research attention and requires effective interventional solutions from the Saudi Ministry of Health.

Studies on Awareness of the Population about Sore Throat:

Sans et al. (2024) explored common perceptions and behaviors related to sore throat among primary caregivers of children and healthcare workers in a community in which the Strep A disease is a public health problem. The population of the study consisted of caregivers of children and healthcare workers in the peri-urban area of Sukuta, Gambia; the size of the population was (47,048) individuals, and the sample included (15) caregivers and a number of healthcare workers, selected using the purposive and gradual method. The study adopted a qualitative research design, and data were collected through interviews (with caregivers) and informal conversations (with healthcare workers). The main findings of the study include the following: Sample members generally perceived sore throat as affecting only one child in the family; the level of perception of sore throat as potentially life-threatening was low; most caregivers preferred managing their children's sore throat problems at home using traditional medicine, but only two caregivers sought professional healthcare because their children experienced severe pain.

The study by Essack et al. (2023) explored consumer conversations on social networking platforms on the use of antibiotics and antimicrobial resistance, with focus on sore throat and the context of the COVID-19 pandemic. The sample of the study consisted of a number of conversations on social networking platforms, originating in eight countries (Germany, Italy, Spain, Mexico, Romania, Russia, Brazil, and Thailand), on antibiotics and antimicrobial resistance. The study adopted a qualitative research design in the collection and analysis of examined content. The findings of the study included the following: Misconceptions on the use of antibiotics in the cases of sore throat were common among examined conversations; the most prominent misconception was the belief that antibiotics are highly effective medications that can treat all types of sore throat conditions; conversations expressed fear over sore throat due to the belief that it might be linked to COVID-19 infection; lastly, conversations revealed that consumers sought antibiotics through both direct and indirect ways, such as buying from a pharmacy and persuading a physicians to write relevant prescriptions, respectively.

Van der Velden et al. (2020) investigated patients' attitudes related to health-seeking behavior and self-management of sore throat. The population of the study consisted of people who had a sore throat in the previous 12 months (at the time of conducting the study) in 13 countries, which are Australia, Brazil, China, France, Germany, Italy, the Philippines, Russia, Saudi Arabia, South Africa, Thailand, the UK and the USA; the final sample included (5,196) individuals. This study was observational, questionnaire-based in nature. The study presented several findings, including the following: 80% of sample members reported seeking advice for sore throat, including 30% who consulted a general practitioner; the most reported reason for seeking advice on sore throat was to prevent the worsening of symptoms, while other reasons included remedying persistent symptoms and reducing the negative impacts of sore throat on daily life; sample members varied significantly in the degree of preferring the use of antibiotics by country, as only 10% those from the UK and 45% of those from Saudi Arabia reported using antibiotics; lastly, sample members also varied in their perception on the effectiveness of antibiotics, as only 24% of those from France, compared to 94% of those from Saudi Arabia, believed that they are effective.

The study by Hailu et al. (2020) investigated community awareness on rheumatic heart disease and sore throat in northern Ethiopia. Adult residents (aged 18 or older) residing in northern Ethiopia represented the population of the study; the final sample included (1,298) individuals. The study adopted a descriptive, cross-sectional research design, and data were collected via questionnaire. The study's main findings include the following: Only 2.6% of sample members had knowledge of the fact that sore throat is caused by viruses or bacteria; only 6.2% of sample members knew that sore throat and heart disease are linked; about 43.3% of sample members accepted the idea of taking their children with sore throat to people practicing traditional medicine; 71.6% of sample members reported having a history of uvulectomy for themselves or their children; only 7.8% of sample members believed that penicillin injection is an effective treatment for managing primary prophylaxis; lastly, only 8.1% of sample members believed that regular penicillin injection is an effective solution for secondary prevention against rheumatic heart disease.

Aloofy et al. (2017) examined knowledge and practice of sore throat management among patients who visit the primary care clinic in King Khalid University Hospital, located in Riyadh, Saudi Arabia.

The study recruited a sample of (276) patients using the convenience sampling method. It adopted the cross-sectional approach, and data were collected via questionnaire.

The study obtained several findings, mainly including the following: Only 6.9% of sample members reported using analgesics in sore throat management; statistically significant differences were found among sample members in reported use of analgesics between males and females, for the favor of females; educational level influenced the choice of drugs for sore throat management, as those who held a bachelor's degree tended to prefer the use of antibiotics, while those who held a secondary school degree preferred the use of analgesics; lastly, 79.4% of sample members reported not following any guidelines in sore throat management.

Methodology:

Approach:

The study adopts the analytical descriptive methodology. This methodology is concerned with collecting classifying data and facts, with the purpose of drawing significant conclusions then arriving at generalizations on the phenomenon under study.

Population:

Size:

The population of the present study consisted of residents of ALBaha region, Saudi Arabia. The sample included (110) individuals selected randomly.

Attributes

Frequencies and percentages of characteristics of the sample were calculated as regards the variables of (gender - educational qualification).

Distribution of Sample in Terms of Gender:

Table 5. Distribution of the study sample, in terms of gender.

	Gender	Frequency	Percentage
1	Male	66	60.0%
2	Female	44	40.0%
Total		110	100.0%

Table 5 shows that (60.0%) of the sample are male, while (40.0%) are female. Thus, males represent the majority of the sample.

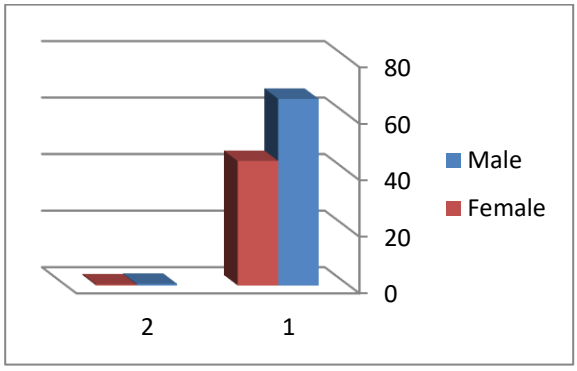

Figure 3. Distribution of the study sample, in terms of gender.

Distribution of Sample in Terms of Educational Qualification:

Table 6. Distribution of the Study Sample, in Terms of Educational Qualification.

	Gender	Frequency	Percentage
1	Secondary school diploma or lower	29	%26.4
2	Bachelor's degree	63	%57.3
3	Postgraduate degree	18	%16.4
Total		110	110

Table 6 shows that (57.3%) of sample members hold a bachelor's degree, (26.4%) hold a secondary school diploma of lower, and (16.4%) hold a postgraduate degree. Thus, those who hold a bachelor's degree represent the majority of the sample.

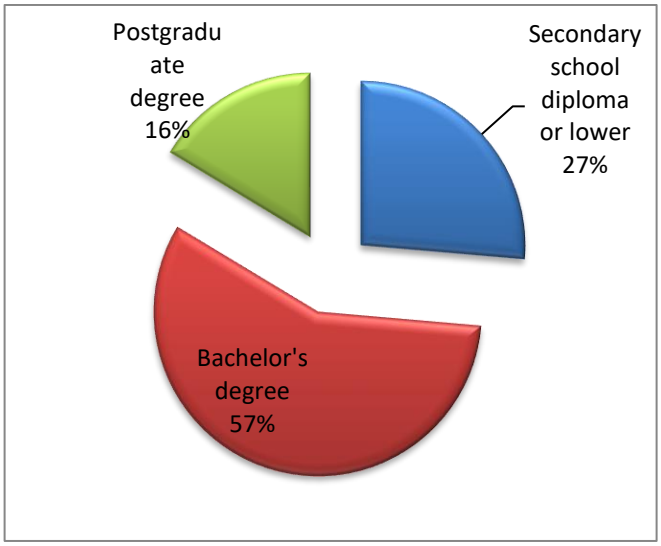

Figure 4. Distribution of the study sample, in terms of educational qualification.

Research Instrument:

Based on findings obtained by relevant studies, the researcher developed a questionnaire form designed for investigating the degree of awareness of the population in ALBaha region about sore throat. The main parts of questionnaire are as follows consists of two parts:

-PART I: demographic data (gender - educatio qualification).
-PART II: questionnaire's axes. A total of 10 statements included. A five-point likert scale (very high – high – moderate – low – very low) is used.
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Validity of the Questionnaire:

Internal consistency was calculated based on sample members' responses, using the Pearson correlation coefficient between each item and the total score for the axis to which the item belongs, as outlined in Table 7 below.

Table 7. Pearson correlation coefficients between the scores of each item and the total score for the axis to which the item belongs.

Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
1	.851	5	.841	9	.853
2	.843	6	.857	10	.845
3	.857	7	.854		
4	.849	8	.860		

Table 7 shows that values of correlation coefficients for the questionnaire's items were rated high, with values being within the range of (.843-.860). This indicates that the questionnaire is valid for implementation and can yield reliable findings.

Discussion of the study's main research question: What is the degree of awareness about sore throat in ALBaha region?

For answering this question, the researcher calculated the mean and standard deviation for each of the questionnaire's items then listed them in a descending order based on the mean, as outlined in Table 8 below:

Table 8. Frequencies, percentages, means, and standard deviations for sample members' responses on the degree of awareness of the population in ALBaha region about sore throat.

	Statement		Responsiveness					Mean	Standard Deviation	Item Ranking	Degree of Responsiveness
			Very High	High	Moderate	Low	Very Low				
1	I know that sore throat can be caused by viral or bacterial infection	f	3	6	17	55	29	3.92	.940	4	High
		%	2.7	5.5	15.5	50.0	26.4				
2	I understand that sore throat resulting from viral infection can improve without the use of special medication	f	6	16	27	46	15	3.44	1.07	10	High
		%	5.5	14.5	24.5	41.8	13.6				
3	I can distinguish a normal case of sore throat from a case with difficulty of breathing or swallowing	f	2	3	10	55	40	4.16	.841	2	High
		%	1.8	2.7	9.1	50.0	36.4				
4	I know that not all cases of sore throat require the use of antibiotics	f	2	4	23	61	20	3.85	.826	6	High
		%	1.8	3.6	20.9	55.5	18.2				
5	I know that symptoms of sore throat may accompany diseases such as common cold or influenza	f	2	8	14	64	22	3.87	.879	5	High
		%	1.8	7.3	12.7	58.2	20.0				
6	I know that drinking hot drinks and resting can alleviate symptoms of sore throat	f	1	1	11	62	35	4.17	.715	1	High
		%	.9	.9	10.0	56.4	31.8				
7	I know that smoking and exposure to smoke increase the likelihood of having sore throat	f	2	4	15	67	22	3.94	.805	3	High
		%	1.8	3.6	13.6	60.9	20.0				
8	I know that gargling warm salt water may be an effective method for alleviating sore throat	f	4	10	19	64	13	3.65	.933	8	High
		%	3.6	9.1	17.3	58.2	11.8				
9	I believe that visiting the doctor is necessary if sore throat persists for more than 5 days and is accompanied by a significant increase in temperature	f	7	7	16	51	29	3.80	1.09	7	High
		%	6.4	6.4	14.5	46.4	26.4				
1	I am aware that sometimes sore	F	8	13	31	38	20	3.45	1.13	9	Hig

0	throat does not necessitate an immediate medical intervention	%	7.3	11.8	28.2	34.5	18.2				
Overall Mean								3.82	.588	---	H

Table 8 shows that the degree of awareness of the population in ALBaha region about sore throat was (high). The overall mean for the questionnaire's statements was valued at (3.82), with a standard deviation of (.588). The values of the standard deviations of the questionnaire's statements No. 2, 9, and 10 were within the range of (1.07-1.13), which are high values. Values for the rest of statements were within the range of (.715-.940), which are low values.

Ranked first was Statement (6) (I know that drinking hot drinks and resting can alleviate symptoms of sore throat), with a mean of (4.17) and a standard deviation (.715), by Statement (3) (I can distinguish a normal case of sore throat from a case with difficulty of breathing or swallowing), with a mean of (4.16) and a standard deviation of (.841). Ranked last was Statement (2) (I understand that sore throat resulting from viral infection can improve without the use of special medication), with a mean of (3.44) and a standard deviation (1.07).

The researcher believes that the high degree of awareness of the population in ALBaha region about sore throat may be attributable to health awareness campaigns organized by the Saudi Ministry of Health or local authorities for promoting awareness on common health problems, such as sore throat, and the role of healthcare centers in providing reliable information on the symptoms of the sore throat problem and ways to deal with it. This finding may also be attributable to that ALBaha region is characterized by a relatively cool climate in Saudi Arabia, leading to increases in the numbers of sore throat cases, thus motivating the general population to gain increased awareness on ways of prevention and treatment against sore throat.

This finding contradicts those obtained by the study of Aloofy et al. (2017), which indicate that patients visiting the primary care clinic in King Khalid University Hospital in Riyadh have low levels of awareness about sore throat, which is evident in the overwhelming prevalence of not following any guidelines in sore throat management. Another study that shows different findings is that by van der Velden et al. (2020), which shows that Saudis have significantly low levels of awareness about sore throat when compared to average global levels.

Conclusion:

The present study has focused on examining the degree of awareness of the population in ALBaha region about sore throat. Findings of the study show that the degree of awareness among the target sample was low. This finding contradicts those obtained by previous studies targeting the Saudi context. Findings of the present study may imply that levels of awareness about the sore throat problem in the Saudi society have increased in recent years, probably due to the challenging crisis of the COVID-19 pandemic. In the light of the presented discussions, this study presents the following research and practice recommendations:

- ***Research recommendations:***
  - Conducting qualitative studies on perceptions of Saudis' in various regions of the country on the effectiveness of commonly implemented methods of sore throat management.
  - Exploring differences between the Saudi society and other Arab societies in general levels of awareness about sore throat.
- ***Practical recommendations:***
  - Local health institutions in ALBaha region should organize all-year-round programs for raising awareness on how to prevent and treat sore throat at home.
  - Saudi schools should organize activities for raising students' awareness about the most proper responses when feeling the symptoms of sore throat.

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