

Less Symptoms, Less Awareness – A Deep View On Common Cold

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ABSTRACT:

The common cold is a viral infection of upper respiratory tract. Mostly common cold are affected by a virus called rhinovirus. Cold is a mild viral infection of a nose, throat, sinuses and upper airway. Mostly infection occur in a winter period. Common cold according to ayurveda is pratishtyaya. The aim of our study was to assess the knowledge of common cold symptoms, treatment, diagnosis, in the population prevalence study was carried out to evaluate the knowledge of common cold among the medical and paramedical students of in various designations Tamil Nadu, India. We used the online survey tool(Google format).

Key words: common cold, Rhinoviruses, Upper tract, awareness, knowledge assessment.

AIM AND OBJECTIVES:

The aim of our study was to assess the knowledge of common cold symptoms, treatment, and diagnosis in the population. To evaluate the knowledge of common cold among the medical and paramedical student(by cross sectional studies).To collect the responses and to analyze the data in statistical manner.

I. INTRODUCTION:

Common cold is a viral infection of the upper respiratory tract. Mostly common cold are affected by a virus namely Rhinoviruses. It was first isolated in “1956 by Dr. WINSTON PRICE”. Common cold are mild infection of the nose and throat, which are common in young children and are caused by many different viruses. There are around 200 cold viruses, including over the rhinoviruses. Each year, there are more than a billion causes of the common cold in the United States, according to National Institute of Health.

Usually last approximately 7-10 days. Rhinoviruses is a the most common cause in to

80% of all respiratory infection. Dezens of rhinoviruses serotypes and frequently antigenic change make identification, characterization and eradication complex. highly infectious illness. Causes mild systematic upset and prominent nasal symptoms. Infectivity from close personal contact (nasal mucosal on hand) or droplets.

HISTORY OF COMMON COLD:

History, while the causes of the common cold was identified in the 1950s the diseases appears to have been with humanity since its early history. Its symptoms and treatment are described in the Egyptian ebers papyrus, the oldest existing medical text, written before the 16th century BCE. In the united kingdom the common cold unit (CCU) was set up by the medical researches council in 1946 and was here that the rhinoviruses was discovered in 1956. Some researcher think the viruses could have started spreading from animals to human at dawn of human civilization – approximately 5,000 to 6,000 years ago.

NAME OF COMMON COLD:

The name “common cold “came into use the 16th century, due to the similarity between its symptoms and those of exposure to cold weather.

MODE OF TRANSMISSION:

Very contagious, spread from person to person usually from nasal secretion and from fingers of the affected persons. Most contagious in the first 3 days after symptoms begin. Viruses can last up to 5 hours on the skin and hard surface. Contamination of shared food, objectives, etc... Air born particles through coughing and sneezing taking, small droplets

SIGNS AND SYMPTOMS:

Dry and sore throat, Running nose, Sneezing, Headache, Slightly fever and chills, Coughing, congestion Begins with a feeling of dryness and stuffiness in the nasopharynx(nose),Red and swallowing mucous membrane Watery eyes, Family history of allergies e.g. dust,pollens&molds,Coexistence of asthma or eczema, Chest discomfort, Postnasal drop or drainage in the back of your throat, Abdominal pain, Vomiting and diarrhea.

ETIOLOGY:

Common cold caused by Respiratory Syncytial Virus (RVS) and rhinovirus (most frequent causative pathogen),other pathogen involved include influenza, Para influenza, and adenoviruses. Enteroviruses : coxsackie viruses and ECHO viruses, Renoviruses, Most infection occurs in the winter period, Most common acute illness in all ages, Increased in medical resource. Cold are most common in children younger than the age of 6 years who routinely experience six to eight colds annually.

PATHOPHYSIOLOGY:

Direct contact with the influenced

Viruses can stay in the unhygienic hands for hours Enter into nasopharynx. Bind to ICAM-1 (intercellular adhesion molecule -1) protein (protein present in leukocytes).Through unknown mechanism triggers inflammatory mediators. Leads to be Signs and symptoms.

TREATMENT OF COMMON COLD:

➤ There is no cure for the common cold
Antibiotics are of no use against cold viruses. Treatment should be focus on symptoms relief. The most common used treatment include over-the-counter,and, Antihistamine, Decongestant, Pain reliever, Cough suppressant, Nasal strips, Antibiotics are ineffective, Herbal product, Prevention the cold.

HOME REMEDY FOR COMMON COLD:

Stay hydration: avoids salty foods, alcohols, coffee, tea, and sugary drinks, which can be dehydration. Gargle with salt water: a salt water gargle with about 1 teaspoon of salt per cup of warm water can help reduce the pain & swelling of a sore throat. Chicken soup, Warm bath, Honey, Ginger, Rest: this is the recharge your body's immune system rest and sleeping are best ways of to do that Humidity the air.



RISK FACTOR:

Cold can affect anyone at any time of year but some factor can increase the risk. Being a young child or older adult. Having a weak immune system. Seasonal factor as colds are more common in winter. Having close contact with someone who has a cold. Extreme age, Allergy, Cytokine production, Asthma, Chronic lung disease, Smoking and second hand smoke, Exposure.

HOW MANY TYPES OF COLD:

1. Common cold
2. Flu
3. Trachea cold
4. Chest cold

1. Common cold:

- The illness of affected your nose and throat. Virus caused by a cold. Often may have two or three cold each year. Infant and young children may have cold more often.

2. Flu: Flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and sometimes lungs. It can cause mild to severe illness and at times can lead to death. It is caused by influenza viruses.

3. Trachea cold:

It is affected in trachea inside accumulate the cold.

4. Chest cold:

- A chest cold, often called acute bronchitis, occurs when the airway the lungs swell and produce mucus in the lungs. That is what makes you cough.

IS ANYONE WORKING ON A CURE FOR THE COMMON COLD

- ❖ Amazon isn't the only organization throwing resources into a cure for the cold "Researchers at Stanford and the University of California are working on a new approach that involving temporarily disabling a single protein inside our cells." Amazon is working on a cure for the common cold in its highly secretive skunk works group. "GRAND CHALLENGE".

BEST MEDICINE FOR COMMON COLD:

- ❖ Decongestant, Anti-histamine. Pain relievers such as "ibuprofen or acetaminophen"

HOW MANY PEOPLE GET THE COMMON COLD PER YEAR:

- ❖ In the course of year individuals in the United States suffer 1 billion colds according to some estimates.

IS THERE A LAB TEST FOR THE COMMON COLD?

- ❖ Viral infection typically causes common cold and coughs and "don't require specific blood test for diagnosis or management. However, there is certain situation when a blood test may be recommended for common cold and cough.

HOW MANY COLD CAN YOU HAVE IN A LIFETIME:

- ❖ On average each of us will get around 200 colds in a lifetime.

THERE ARE FOUR TYPES OF STAGES:

- Incubation period
- Appearance of symptoms
- Remission
- Recovery

1. INCUBATION PERIOD:

- Incubation period is the time between when you infected and when your symptoms first appear.
- The common cold is between 12 hours and three days after exposure to the virus.

2. APPEARANCE OF SYMPTOMS:

- Symptoms may include a stuffy, runny nose, scratchy, tickly throat, sneezing, watery eyes and a low-grade fever.
- Treatment to reduce symptoms includes getting rest and drinking plenty of fluid. Because colds are caused by viruses, treatment, with antibiotics won't work.

3. REMISSION:

At this point cold symptoms begin to alleviate remission typically occurs between three and ten days after infection.

4. RECOVERY:

- In a final stage of the common cold there then may be some remaining symptoms, but they're usually mild. It may take up to weeks for any lingering symptoms to fully resolve.

METHODOLOGY:

- We used the online survey tool (Google form). A total of 115 participants completed the online questionnaire

- It consists of 10 questions on knowledge of Common cold.
- A semi structure questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire.
- The questionnaire was validated by were analyzed in a statistical manner.

REASONS FOR FRAMED QUESTIONS:

- ❖ In developing these questions, I aimed to enhance understanding of the common cold, a widespread and frequently encountered illness. By focusing causes, symptoms, prevention, and treatment, these questions are designed to encourage critical think and promote awareness of this everyday health challenge. They serve not foster a deeper appreciation for the importance of recognizing and maintaining common cold effectively.
- ❖ My goal was to address a range of key associate that are essential for understanding the prevalent condition.
- ❖ The question is framed to cover not only the basic symptoms and transmission method but also the various environmental and behaviors' factors in influencing susceptibility and the difference between the common cold and other similar illnesses.

❖ RESULTS :

S. NO	QUESTIONS	YES (%)	NO (%)
1.	Do you hear about the word common cold ?	97%	3%
2.	Whether it will caused by virus only ?	60%	40%
3.	Common cold affected the other inner organ like heart, brain?	50%	50%
4.	Did you know celebrate in 15 th September World Anti-cold day?	20%	80%
5.	Do you think, there is complete treatment for cold?	47%	53%
6.	Do you obtain medicine from a medical shop or directly from Doctor?	80%	20%
7.	Can you identify the source of cold you are suffer from?	20%	80%
8.	Can dust cause a cold?	40%	60%
9.	Is vitamin C deficiency, a cause of cold and cough?	50%	50%
10.	Does on untreated cold lead to pneumonia?	15%	85%

II. RESULTS AND DISCUSSION

1. Do you hear about the word common cold?

YES - 97 % NO - 3 %

- YES, Common cold is a mostly affected in the people. It is a common illness in the world.
- It is a mild infection of upper respiratory tract (which includes your nose and throat).
- Adults have an average of 2-3 colds per year, and children have even more.
- Colds are more common in the winter and spring, but you can get them at anytime.

2. Whether it will caused by virus only?

YES - 60% NO - 40%

- No, common cold is not only caused by virus.
- It is also caused by contact with others who is already affected by common cold.
- A. Droplets in the air: When someone who is sick coughs, sneezes, or talks.
- B. Hand to hand contact: Touching someone who has a cold.
- C. Sharing objects: Sharing dishes, towels, toys, or telephones with someone who has a cold.
- D. Touching your face: Touching your eyes, nose, or mouth after contact with the virus.

3. Common cold affected the other inner organ like heart, brain ?

YES - 50 % NO - 50%

- YES, a common cold increases your heart rate. Because, the symptoms of a cold can cause stress and anxiety .It affect the olfactory bulb the structure in the front of the brain - (anosmia) – loss of smell.
- Research suggests that cold viruses cause sluggishness by interfering with neurotransmitters, perhaps affecting the transmission of nor-adrenaline, choline and dopamine.

4. Did you know celebrate in 15th September World Anti-cold day?

YES - 20 % NO - 80 %

- YES, Common cold Awareness week celebrated on 13th -18th September .It was first celebrated on 2009, to create awareness for people.
- In such way nation-wide campaign from September 10th to 15th, 2018 to mark “Anti-cold day” on September 15th.

5. Do you think, there is complete treatment for cold?

YES - 47% NO - 53%

- NO, there is no cure for the common cold in both medicine and home remedies, only relief for the symptoms.
- The common cold is caused by variety of viruses, most commonly rhinovirus and these viruses mutate frequently .Because of this variability,

it's challenging to develop a single treatment that completely cures or prevents cold.

- The best approach to dealing with a cold is to manage the symptoms and allow the body's immune system to fight off the infection.

6. Do you obtain medicine from a medical shop? Or directly doctor?

YES - 80 % NO - 20 %

- NO, if a doctor advice is not taken before using medicine, it may create some side effect-antibiotic.

7. Can you identify the source of cold you are suffered from?

YES - 20 % NO - 80 %

- Yes, identifying the exact source or cause of a cold can be challenging because cold caused by a wide variety of viruses, most commonly rhino virus.
- However ,here few ways you might identify potential sources or contributing factors:
 - i. Recent exposure to infected individuals
 - ii. Environment
 - iii. Weakened immune system
 - iv. Recent travels and new surrounding

8. Can dust cause a cold?

YES - 40 % NO - 60 %

- YES, dust and dust mite droppings can make it difficult to breath and may trigger asthma symptoms.
- Some signs and symptoms of dust mite allergy, such as a runny nose or sneezing are similar to the common cold.
- Organic dust toxic syndrome(ODTS) is a illness that may follow exposure to heavy concentration of organic dust contaminated with microorganisms.

9. Is vitamin C deficiency, a cause of cold cough?

YES - 50 % NO - 50 %

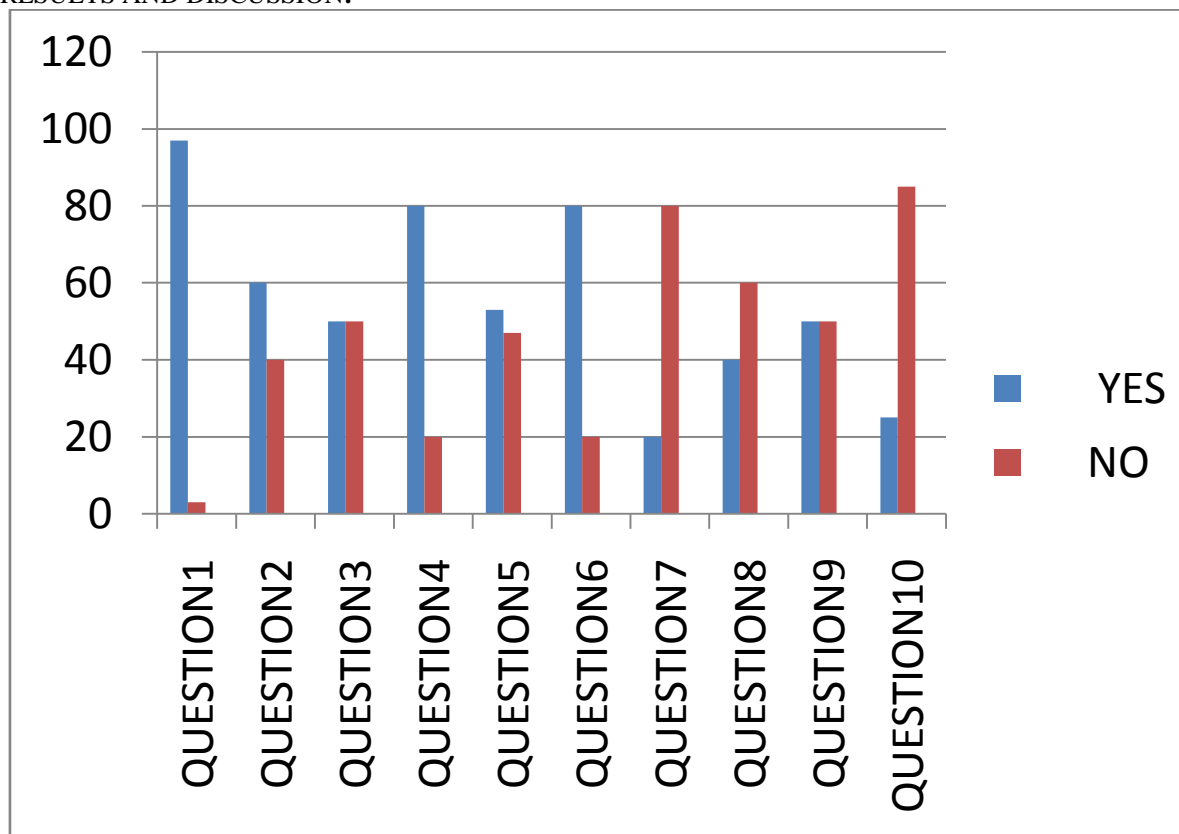
- NO, vitamin D deficiency it affect your immunity, prone to cold and flu.
- Vitamin D is a beneficial in improving fever and cough resolution.

10. Does on untreated cold lead to pneumonia?

YES - 15 % NO - 85 %

- YES, a cold or bronchitis can turn into pneumonia.
- A common cold can potentially develop into pneumonia.
- Viral and bacterial pneumonia can both be connected to cold and other upper respiratory illness.
- While cold do not directly cause pneumonia, it can increase your risk of developing it.

RESULTS AND DISCUSSION:



III. SUMMARY AND CONCLUSION :

Increased and improved common cold education is clearly needed in the respected curriculums for students in the health profession, and the continuing education for health professionals.

We suggest the there are opportunities of increase common cold knowledge across a broad.

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REFERENCES:

- [1]. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3928210/>
- [2]. Heikkainen T.Jarvinen A. The common cold. Lancet 2003; 361; 51-9 (PMC free article)
- [3]. Lober B.The common cold. J Gen Intern Med 1996; 11:229-36(PMC free article)
- [4]. <https://www.medicalnewstoday.com/articles/166606>
- [5]. <https://www.sciencedirect.com/science/article/abs/pii/S1081120610632139>