

Survey on Prevalence, Treatment and Complications of Seasonal Allergies at Dhaka Medical College & Hospital



Daffodil
International
University

PROJECT REPORT

[In the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy]

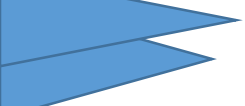
Submitted To

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APPROVAL

This project paper, **Survey on Prevalence, Treatment and Complications of Seasonal Allergies at Dhaka Medical College & Hospital**, submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

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DECLARATION

I hereby declare that this project report, **Survey on Prevalence, Treatment and Complications of Seasonal Allergies at Dhaka Medical College & Hospital**, is done by me under the supervision Dr. Md. Sarowar Hossain Associate Dean & Associate Professor, Department of Pharmacy Faculty of Health & Life Sciences Daffodil International University. I am declaring that this project is my original work. I also declare that neither this thesis nor any part therefore has been submitted elsewhere for the award of bachelor degree.

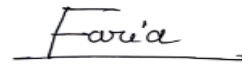
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I might want to communicate my profound applause to the All-powerful Allah who has given me the capacity to finish my undertaking work and the chance to concentrate in this subject.

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I also wish to offer my respect to all of the teachers of Pharmacy Department, Daffodil International University and thankful to other members for their excellent cooperation with us.

Finally, I would like to express my gratitude towards my parents and other family members for their kind cooperation and encouragement which helped me in completion of this project.



My Parents,

The persons who always encourage me in every sphere of my life.

My teacher,

***The persons who guided me in this process and the faculties who kept me
on track.***

Abstract

Seasonal allergies, characterized by immune responses to airborne allergens such as pollen, mold spores, and certain grasses, affect a significant portion of the global population. This survey aims to provide a comprehensive overview of the prevalence, treatment strategies, and associated complications of seasonal allergies. As per this chart, majority of the responders 50% replied that they have been experienced most allergy symptoms in winter season. 25% participants retorted that they have been felt runny/stuffy nose symptoms during seasonal allergies. 23% responders replied that they have been felt coughing symptoms. As per survey 38% participants replied that Dust mite has been triggered their seasonal allergy symptoms. 22% Mold, 20% pollen & 15% responders replied that grass has been triggered their seasonal allergy symptoms. 30% participants replied that antihistamines to alleviate seasonal allergy symptoms. 25% responders retorted that they have been taken Nasal decongestants to alleviate seasonal allergy symptoms, 18% Nasal saline rinse. As per this survey 33% participants reduced taken allergy triggering food to prevent seasonal allergy. 27% participants avoided pollen exposure to prevent seasonal allergy, 22% participants kept windows closed in home and car to prevent seasonal allergy. A sizable portion of survey respondents (38%) acknowledged using Fexofenadine, 25% replied that Rupatadine, 20% retorted that Desloratadine & 15% said Doxycycline without a prescription from a physician. Majority of the responders have been replied that they have been felt Dizziness, 18% retorted Low pulse, 15% said coughing. 56% participants replied that they have been mentally retarded for their allergic symptoms. In conclusion, this survey provides valuable insights into the prevalence, treatment modalities, and complications of seasonal allergies.

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Chapter 1

Introduction

1.1 Introduction

Seasonal allergies, also known as allergic rhinitis or hay fever, are a prevalent health concern affecting millions of individuals worldwide. Characterized by symptoms such as sneezing, nasal congestion, itching, and watery eyes, seasonal allergies occur in response to specific environmental allergens, typically pollen from trees, grasses, and weeds. Despite their common occurrence, seasonal allergies can significantly impair quality of life and productivity if left untreated [1]. Understanding the prevalence, treatment modalities, and associated complications of seasonal allergies is crucial for effective management and improved patient outcomes. This survey aims to comprehensively explore the landscape of seasonal allergies, encompassing their prevalence across different geographical regions, demographic factors influencing susceptibility, commonly employed treatment strategies, and potential complications associated with inadequate management. By synthesizing existing research findings, clinical insights, and patient experiences, this survey seeks to provide a nuanced understanding of the multifaceted nature of seasonal allergies and inform healthcare professionals, policymakers, and individuals affected by these conditions [2]. Through a systematic examination of peer-reviewed literature, epidemiological studies, and clinical guidelines, this survey endeavors to shed light on the current state of knowledge regarding seasonal allergies. Furthermore, it aims to identify gaps in existing research and clinical practice, paving the way for future investigations and interventions aimed at enhancing the prevention, diagnosis, and management of seasonal allergies [3]. Ultimately, the findings of this survey hold the potential to inform evidence-based approaches to mitigate the burden of seasonal allergies on individuals and healthcare systems alike. By fostering greater awareness, understanding, and collaboration, we can strive towards improving the lives of those affected by seasonal allergies and promoting optimal health and well-being throughout the seasons [4].

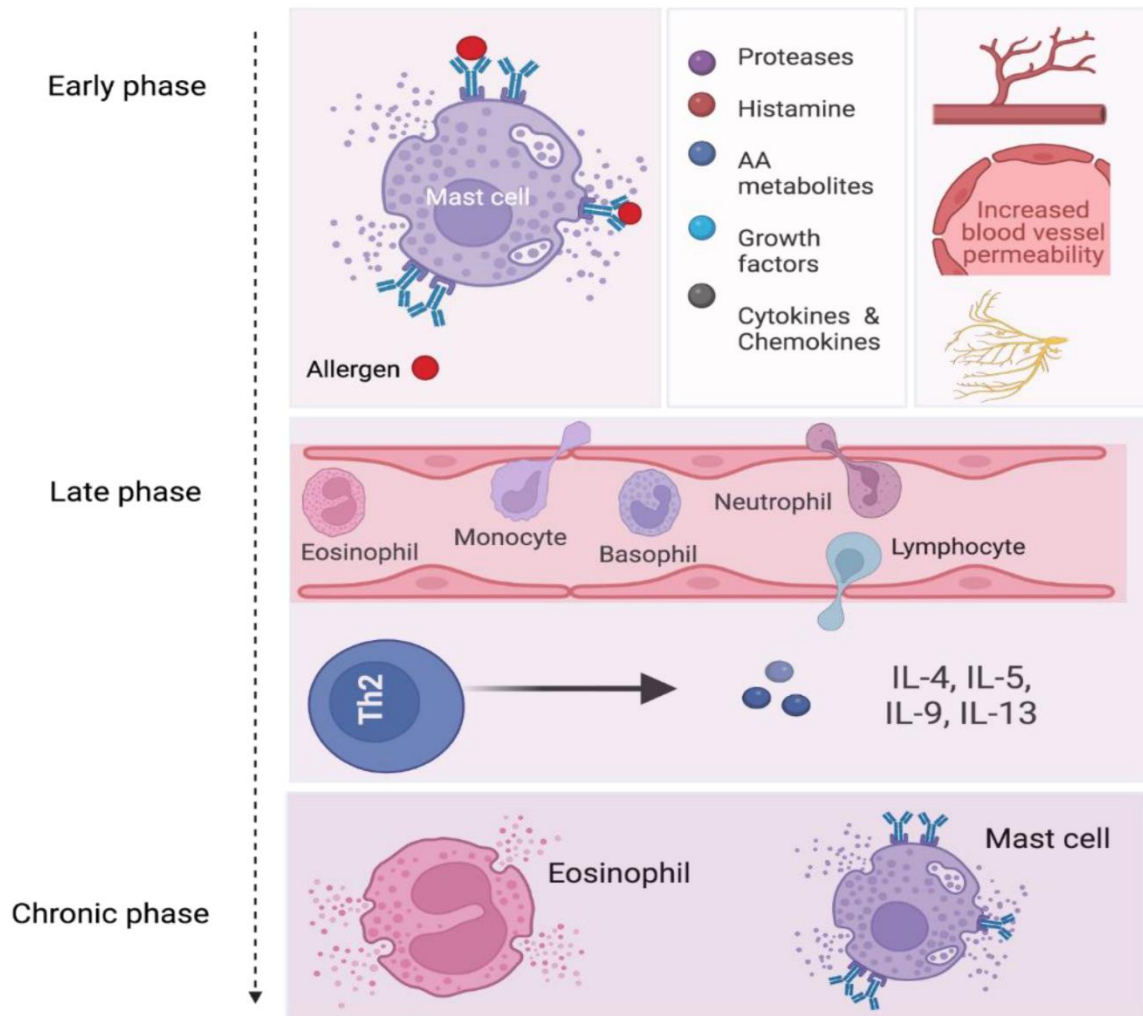


Figure 1: Different pathological phase of allergies

1.2 Epidemiology of seasonal allergies

Seasonal allergies, also known as allergic rhinitis or hay fever, are a common health issue worldwide, particularly in regions with distinct seasonal changes. The epidemiology of seasonal allergies can vary depending on factors such as geographical location, climate, environmental allergens, and population demographics. Here are some key points regarding the epidemiology of seasonal allergies [5]:

1. **Prevalence:** Seasonal allergies are prevalent globally, affecting individuals of all ages. According to the World Allergy Organization (WAO), allergic rhinitis affects between 10% and 30% of the global population.

2. **Geographical Variation:** The prevalence of seasonal allergies can vary significantly based on geographical location. Regions with temperate climates tend to have higher rates of seasonal allergies, particularly during seasons with increased pollen counts. However, seasonal allergies can also occur in tropical regions due to other allergens such as mold spores [6].
3. **Seasonal Variation:** As the name suggests, seasonal allergies typically occur during specific times of the year when airborne allergens such as pollen from trees, grasses, and weeds are at their peak. The timing and severity of seasonal allergies can vary depending on the local climate and the specific allergens prevalent in the area.
4. **Age and Gender:** Seasonal allergies can affect individuals of any age, but they often develop during childhood or adolescence. However, it's not uncommon for adults to develop seasonal allergies later in life. Some studies suggest a slight predominance of seasonal allergies in males during childhood, but this trend may reverse in adulthood [7].
5. **Family History and Genetics:** There is a strong genetic component to allergic rhinitis, with individuals having a family history of allergies being at a higher risk of developing seasonal allergies themselves. However, environmental factors also play a significant role in the development and exacerbation of allergic rhinitis.
6. **Impact on Quality of Life:** Seasonal allergies can significantly impact an individual's quality of life, leading to symptoms such as sneezing, nasal congestion, runny nose, itchy/watery eyes, and fatigue. These symptoms can interfere with daily activities, sleep, work/school performance, and overall well-being [8].
7. **Management and Treatment:** Management of seasonal allergies typically involves allergen avoidance strategies, pharmacotherapy (e.g., antihistamines, intranasal corticosteroids), and allergen immunotherapy (allergy shots or sublingual tablets) for individuals with severe or persistent symptoms. Lifestyle modifications such as using air purifiers, keeping windows closed during high pollen seasons, and wearing masks can also help reduce exposure to allergens [9].

1.3 Pathogenesis of seasonal allergies

Seasonal allergies, often called allergic rhinitis or hay fever, are caused by an overreaction of the immune system to environmental allergens, especially during specific times of year. There are numerous important processes in the etiology of seasonal allergies:

Exposure to Allergens:

Seasonal allergies are triggered by exposure to airborne allergens such as pollen from grasses, trees, or weeds. These allergens are harmless substances that can be found in the environment during certain times of the year [10].



Sensitization:

Upon exposure to allergens, individuals who are genetically predisposed to allergies may become sensitized. During the initial exposure, the immune system recognizes the allergen as foreign and produces specific antibodies called immunoglobulin E (IgE) against it.



Activation of Mast Cells:

In subsequent exposures, the allergen binds to specific IgE antibodies on the surface of mast cells, which are a type of immune cell found in tissues throughout the body, including the nasal mucosa. This binding triggers the release of inflammatory mediators such as histamine, leukotrienes, and cytokines from the mast cells [11].



Inflammatory Response:

The release of these inflammatory mediators leads to inflammation of the nasal mucosa, causing symptoms such as nasal congestion, itching, sneezing, and rhinorrhea (runny nose).

Additionally, inflammation may extend to the eyes, leading to symptoms such as itching, redness, and watery eyes [12].



Recruitment of Immune Cells:

The inflammatory response also recruits other immune cells, such as eosinophils and T lymphocytes, to the nasal mucosa. These cells further amplify the inflammatory process and contribute to tissue damage.



Symptom Manifestation:

The culmination of these processes results in the characteristic symptoms of seasonal allergies, which typically include nasal congestion, sneezing, itching, and rhinorrhea. In some cases, individuals may also experience symptoms such as coughing, sore throat, and fatigue [13].



Resolution and Repeat:

Once the allergen is no longer present or exposure decreases (e.g., as the pollen season ends), symptoms may gradually resolve. However, with subsequent exposures to the same allergen, the immune response is quickly reactivated, leading to recurrent symptoms during subsequent allergy seasons [14].

In general, environmental allergens, the immune system, and other inflammatory mediators interact intricately during the development of seasonal allergies, ultimately resulting in the recognizable symptoms that impacted individuals encounter [15].

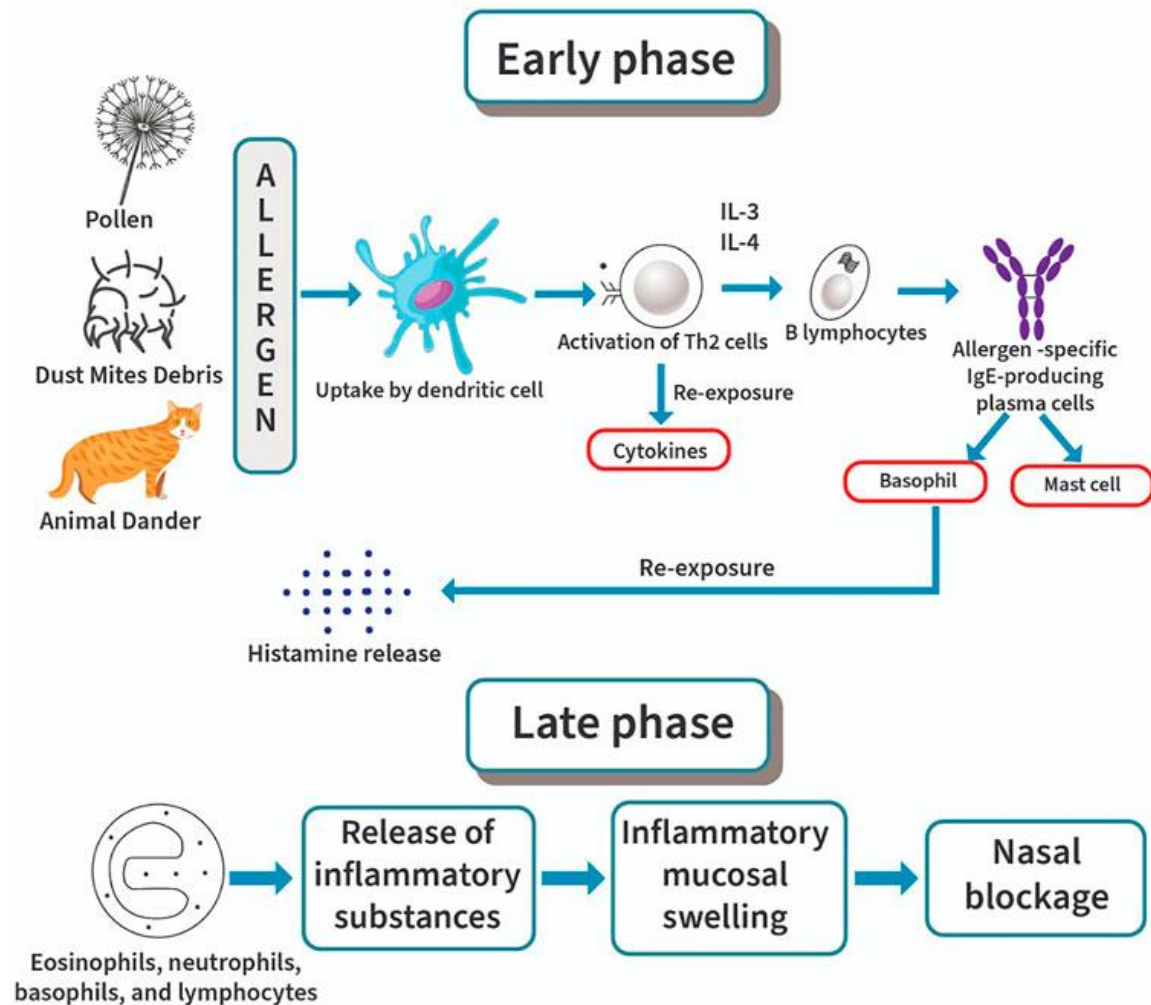


Figure 2: Pathogenesis of seasonal allergies

1.4 Diagnosis & Management of seasonal allergies

Diagnosis and management of seasonal allergies, also known as allergic rhinitis or hay fever, involve several steps to effectively identify triggers and alleviate symptoms. Here's a comprehensive guide:

Diagnosis:

- Clinical Evaluation:** The doctor will start with a thorough medical history and physical examination, paying attention to symptoms and their timing in relation to seasons [16].
- Allergy Testing:**
 - Skin Prick Test:** Small amounts of common allergens are pricked into the skin to observe any allergic reactions.

- **Blood Tests (e.g., IgE levels):** Measures the amount of allergy-related antibodies in the bloodstream.
- **Allergen-Specific IgE Tests:** Detects specific allergens causing symptoms [17].

Management:

1. Avoidance of Triggers:

- Monitor pollen counts and try to stay indoors when they are high.
- Keep windows closed during peak pollen seasons.
- Use air conditioning with HEPA filters to reduce indoor pollen exposure.
- Avoid outdoor activities like mowing lawns during high pollen times [18].

2. Medications:

- **Antihistamines:** Block histamine release and help relieve itching, sneezing, and runny nose.
- **Decongestants:** Reduce nasal congestion by constricting blood vessels.
- **Nasal Corticosteroids:** Reduce inflammation and symptoms like nasal congestion, sneezing, and runny nose.
- **Leukotriene Receptor Antagonists:** Blocks leukotrienes, chemicals that play a role in allergic reactions.
- **Mast Cell Stabilizers:** Help prevent allergic reactions.
- **Nasal Anticholinergic:** Can help reduce nasal discharge [19].

3. Immunotherapy:

- **Allergy Shots (Subcutaneous Immunotherapy):** Involves regular injections of allergen extracts to gradually desensitize the immune system.
- **Sublingual Immunotherapy (SLIT):** Under-the-tongue tablets or drops that contain small amounts of allergens are taken daily [20].

4. Nasal Irrigation:

Using saline solutions to rinse the nasal passages can help clear out allergens and mucus.

5. Allergy-proofing Your Home:

- Use allergen-proof covers for pillows and mattresses.
- Wash bedding regularly in hot water.
- Remove carpets or use allergy-friendly flooring.

	• Clean surfaces regularly to remove dust and mold [21].
6. Education and Lifestyle Modifications:	
	• Educate about triggers and how to avoid them. • Encourage wearing sunglasses and hats when outdoors to reduce pollen exposure. • Shower and change clothes after spending time outdoors during high pollen seasons [22].
7. Consultation with an Allergist:	
	• For severe allergies or cases not responding to initial treatments, consultation with an allergist may be necessary.
8. Emergency Action Plan:	
	• For individuals with severe allergies, having an emergency action plan with prescribed medications like epinephrine auto-injectors is crucial [23].

Chapter 2

Literature Review

2.1 The Impact of Changing Seasons: Seasonal Allergy Prevalence and Management

Allergy responses are believed to be complex, diverse illnesses caused by a combination of hereditary and environmental variables. They might present in different organs. The study's objective is to assess our existing knowledge of the environmental variables that influence the frequency and course of allergic diseases like allergic rhinitis, asthma, atopic dermatitis, and allergic conjunctivitis. While the local temperature may affect patients directly, it also influences the causes of food and airborne allergies by influencing the flora and fauna in certain geographic areas. Epidemiological research indicates a high correlation between air pollution and the development of allergic disorders, including asthma. The greatest amount of emphasis has been focused on particulate matter (PM) and gaseous pollutants like ozone (O₃) and nitrogen dioxide (NO₂) that are created by industrial and vehicle traffic. When diesel exhaust particle (DEP) enters the respiratory tract profoundly, it can bind proteins and potentially become an agent of allergies. Foods can trigger a range of non-immunological responses associated with the rapid release of messengers or potentially harmful operations, in addition to actual IgE-mediated allergies. The human environment is known to include about 85,000 different chemicals, some of which might serve as irritants or interaction allergens, causing allergic or non-allergic contact dermatitis. The etiopathogenesis of allergy illnesses has long been connected to their deteriorating over time. Infections could be contributing to this [24].

2.2 Hidden Allergic Factors in the Etiology of Asthma

A growing amount of research from population research, allergen aversion research, and case control investigations indicates that inhaled allergies are a major contributing factor to the etiology of asthma. The incidence of blood IgE antibodies to common allergens in patients treated with acute asthma episodes and in not chosen age-matched control participants has been studied in recent research conducted in hospital emergency rooms. The investigations, which were conducted in northern California and central Virginia, revealed a significantly higher prevalence of IgE antibodies to inhaled allergens among asthmatic patients. These findings imply that the development of allergen-specific IgE antibody responses is a significant risk factor for asthmatic patients' acceptance to the emergency room. The emergency room presentations seemed to be connected to the

patients' contact with particular allergens. A novel immunoassay technique utilizing monoclonal antibodies has been created to quantify the levels of "indoor" allergens such as cockroaches, cats, and mites in the homes of asthmatic patients. It is now feasible to suggest approximate quantities of mite allergens, which ought to be taken into account as a contributory factor for both acute asthma episodes (10(μ g allergen/g dust) and IgE antibody hypersensitivity (2 μ g allergen/g dust). Research of indoor allergens and the creation of effective allergy prevention strategies will be necessary for the treatment of asthma in the years to come. More research is required to determine how airborne allergen stages, particle size, and the onset of asthma episodes are related. Immunologic pathways that may lead to bronchial hyperactivity also need to be investigated [25].

2.3 Seasonal Allergic Rhinitis

Seasonally rhinorrhea, nasal congestion/stuffiness, nasal and ocular pruritus, and paroxysmal sneezing are the hallmarks of seasonal allergic rhinitis. Most patients can benefit from increased quality of life and discomfort alleviation with proper medication. A nasal corticosteroid or an oral antihistamine by itself can be used to treat mild instances. In cases of greater severity, a nasal corticosteroid may be necessary in addition to other medications. Immunology is only prescribed to a particular subset of individuals. All other therapies relieve symptoms temporarily, but targeted immunotherapy could lead to long-term consequences. New patents in the subject are also covered in this piece of review [26].

Chapter 3

Purpose of the study

3.1 Purpose of the study

Seasonal allergies, often called allergic rhinitis or hay fever, are caused by an overreaction of the immune system to environmental allergens, especially during specific times of year.

- The primary purpose of this study is to assess the prevalence of seasonal allergies within a specific population or region.
- Evaluation of Treatment Approaches.
- The study seeks to identify common complications associated with seasonal allergies.
- Investigating the factors contributing to the burden of seasonal allergies is crucial.
- Finally, the study seeks to contribute to the existing body of scientific knowledge on seasonal allergies.

Chapter 4

Materials & Method

4. Materials & Method

Indicate a cross-sectional investigation strategy to collect data from patients of Dhaka medical college & Hospital.

- I have started work for this examination in December 2023.

4.1 Data Collection:

- Develop a structured questionnaire that covers demographics, awareness about Seasonal allergies, prevalence, and management practices.
- Pre-test the questionnaire to identify and address any issues.
- Employ trained interviewers for face-to-face or telephone interviews, depending on resources.
- Translate the questionnaire into Bengali for better understanding by the local population. Train a team of data collectors on the questionnaire and ethical considerations.
- Conduct face-to-face interviews, phone interviews, or online surveys, depending on the accessibility of the respondents. Ensure informed consent and data confidentiality.
- Some important data has been collected by reviewed number of related article paper from different website like Google scholar, research gate and PubMed.

4.2 Data Variables:

- Collect demographic information, including age, gender, educational background, occupation, and residence.
- Gather evidence associated to Understanding Prevalence & Management of Allergies, such as the presence of symptoms, family history, triggers, severity, and healthcare utilization.
- Explore lifestyle factors, including smoking habits, dietary patterns, and physical activity.
- Assess environmental factors, such as air quality, housing conditions, and proximity to potential allergens.

4.3 Sample size

The test had 13 short-answer questions and took roughly four to five minutes to finish.

- I have tried my best to collect all data from different profession people for gathering different types of information.
- The examination is led by a questionnaires oriented survey, 200 populations was being responded for this imposts.

4.4 Data analysis strategy

Data analysis is the methodical application of statistical and/or logical tools for describing and illustrating, condensing and summarizing, and evaluating data. Use appropriate statistical software to analyze the collected data. Employ descriptive statistics to summarize demographic and prevalence data.

Chapter 5

Results & discussion

5.1 Age of Responders

Q: Age

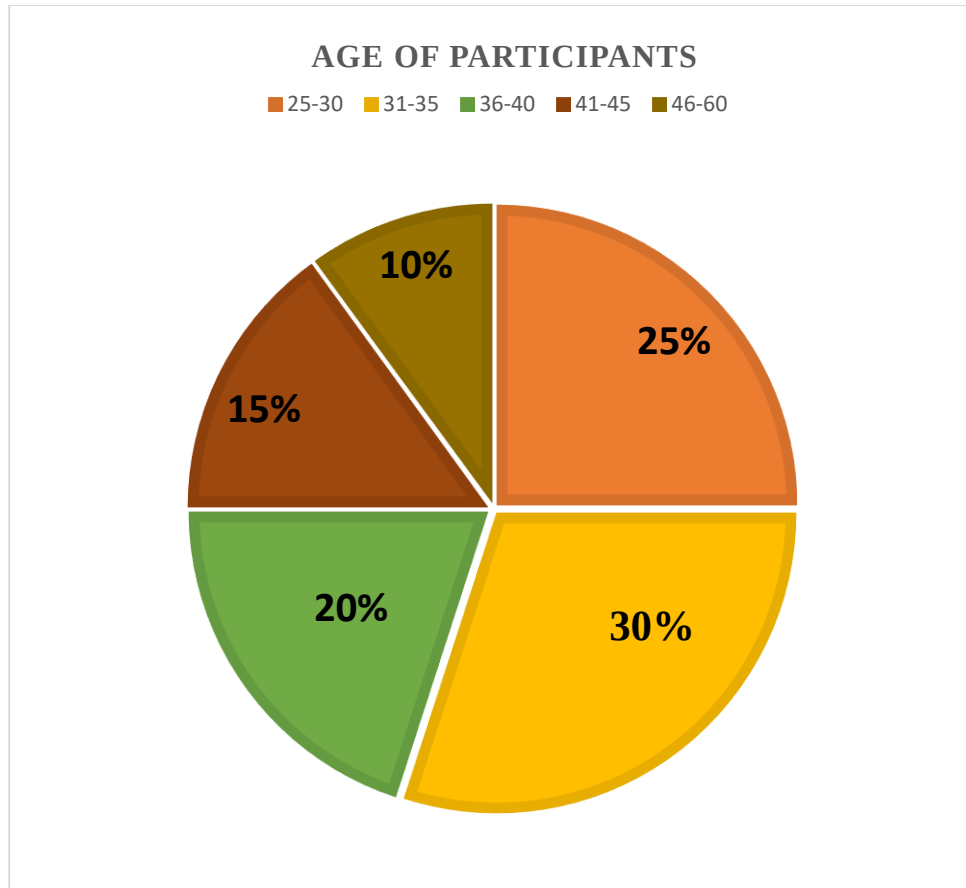


Figure 3: Age of Responders

Discussion: The total number of people who took part in this study was 200. Among them were those surveyed, who ranged in age from **25 to 60**. In this section those around the ages of 31 and 35 made up the largest age group of those who participated (**30%**). A quarter (25%) of the people who took part were in the age range of 25 to 30. The next age groups were (20%) 36 to 40, (15%) 41 to 45, and 46 to 60 (10%) respectively.

5.2 Gender of Participants

Q: Gender

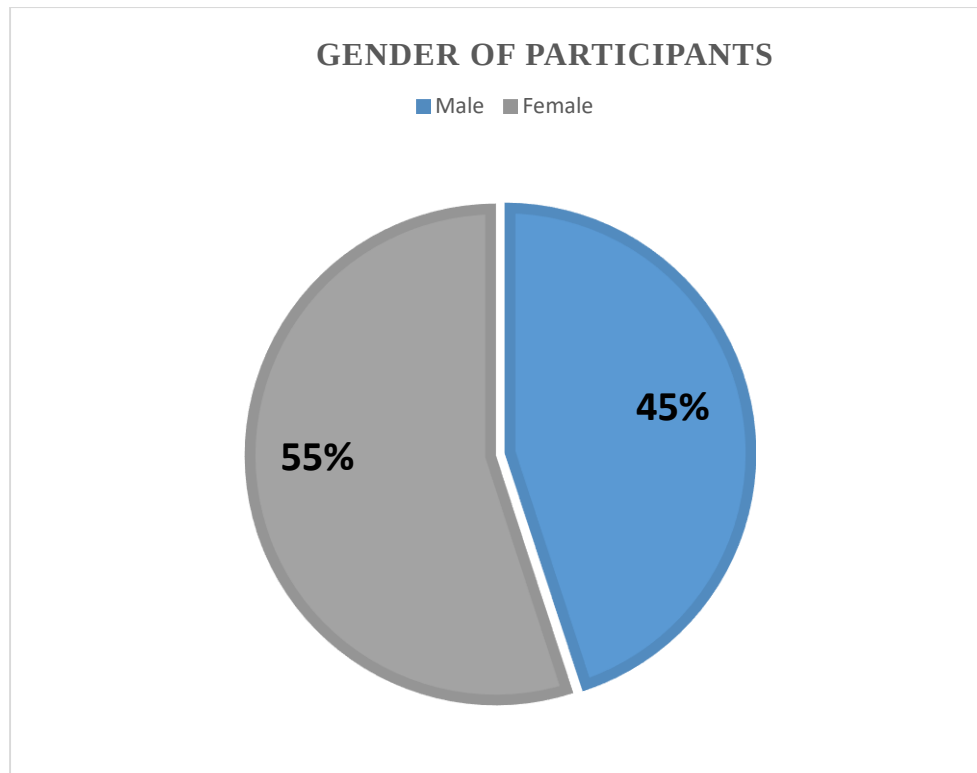


Figure 4: Gender of Participants

Discussion: Allergies are able to impact anybody, but some research indicates that women may be more susceptible to them than males. The inspection's gender representation is varied, with 45% of its participants being men and 55% being women.

5.3 Professional Status of Responders

Q: What is your professional status?

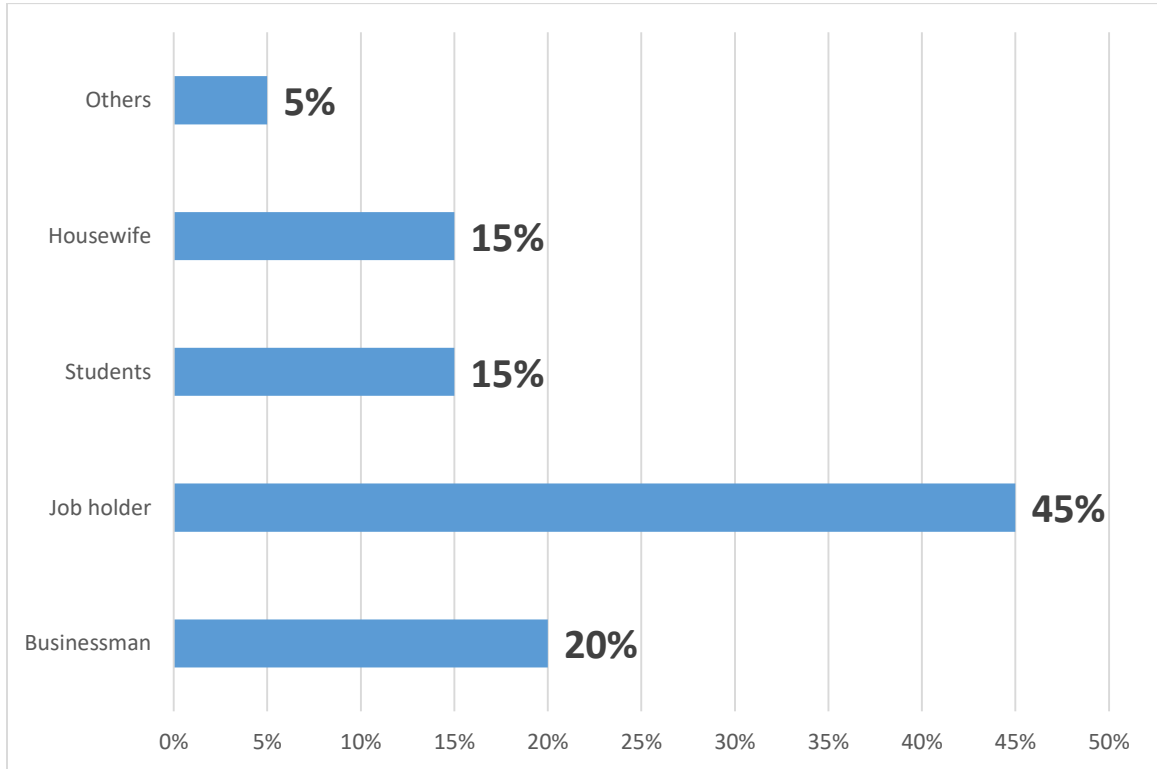


Figure 5: Professional Status of Responders

Discussion: Various professionals have been selected to participate in this assessment. According to figure 5, 45% of those taking part are employed, and 20% are business owners.

5.4 Seasons name that experienced the most allergy symptoms

Q: Which seasons do you experience the most allergy symptoms?

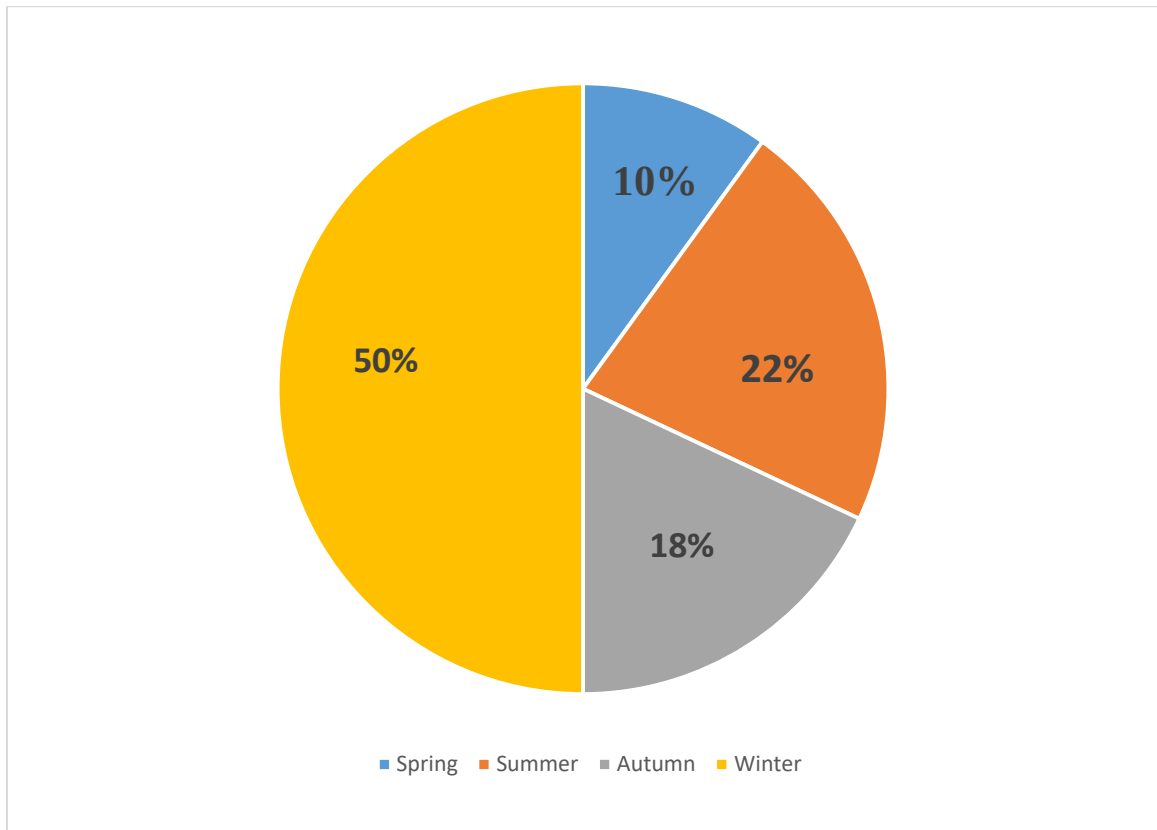


Figure 6: Seasons name that experienced the most allergy symptoms

Discussion: As per this chart, majority of the responders 50% replied that they have been experienced most allergy symptoms in winter season. Additionally, 22% replied summer, 18% replied autumn & 10% replied they have been experienced most allergy symptoms in spring season.

5.5 Symptoms of seasonal allergies

Q: Which of the following symptoms do you typically experience during allergy season?

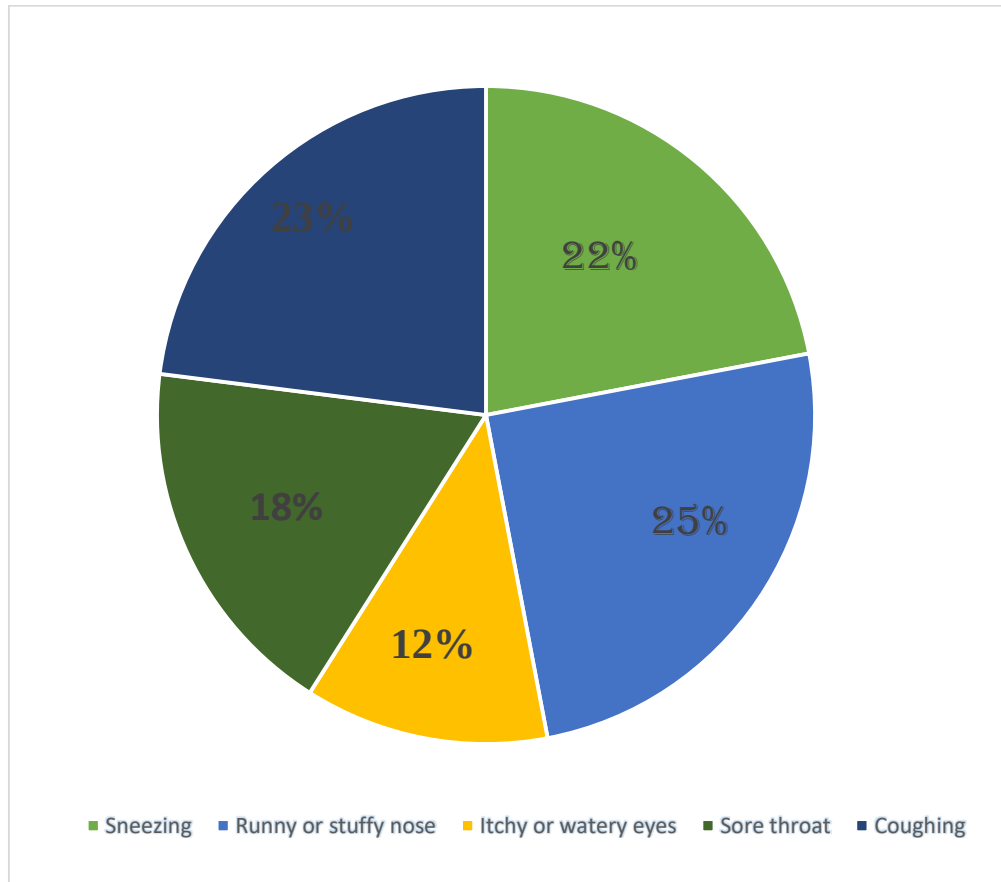


Figure 7: Symptoms of seasonal allergies

Discussion: As per this survey 25% participants retorted that they have been felt runny/stuffy nose symptoms during seasonal allergies. 23% responders replied that they have been felt coughing symptoms, 22% retorted that they have been felt sneezing, 18% felt sore throat & 12% retorted that they have been felt itchy or watery eyes.

5.6 Frequency of seasonal allergy

Q: How frequently do you experience seasonal allergy symptoms during peak allergy seasons?

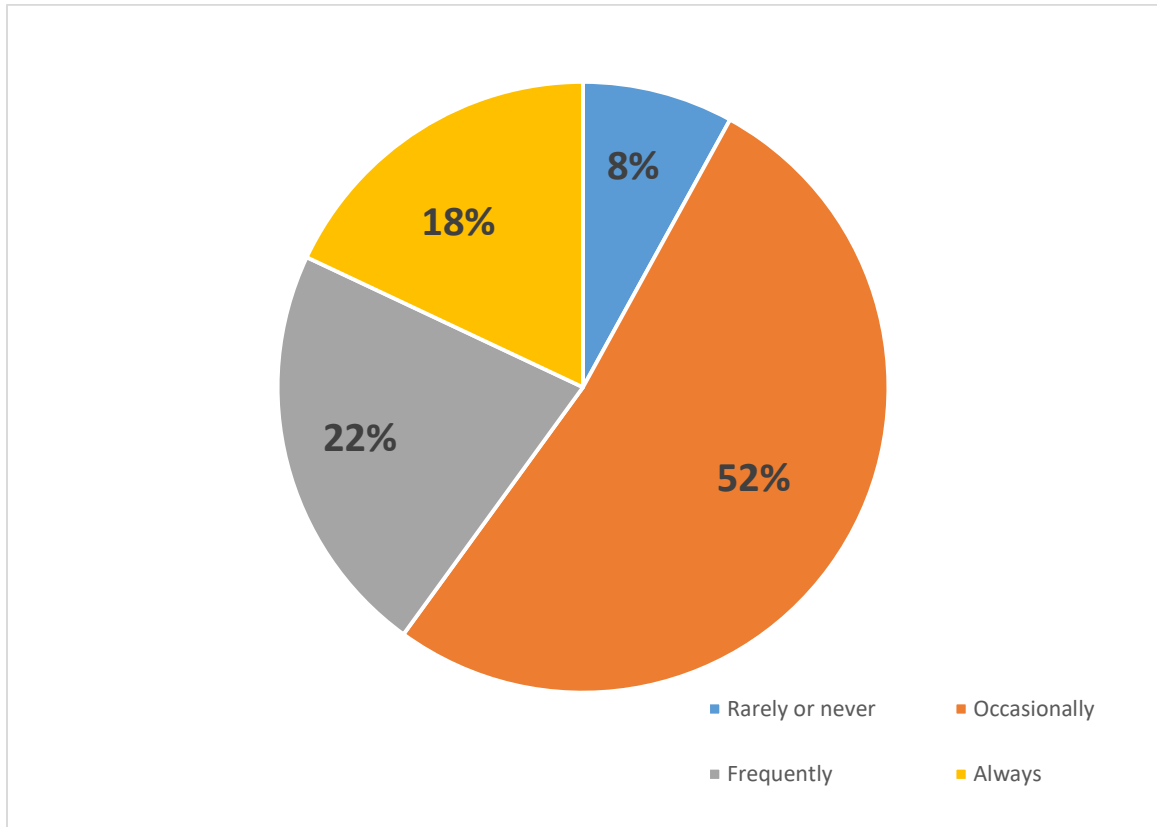


Figure 8: Frequency of seasonal allergy

Discussion: In this assessment 52% responders retorted that they have been experienced occasionally seasonal allergy symptoms during peak allergy seasons. 22% participants retorted that they have been experienced frequently seasonal allergy symptoms during peak allergy seasons & 18% responders also retorted that they have been experienced always seasonal allergy symptoms during peak allergy seasons.

5.7 Seasonal allergy symptoms triggering substances

Q: What specific triggers do you believe worsen your seasonal allergy symptoms?

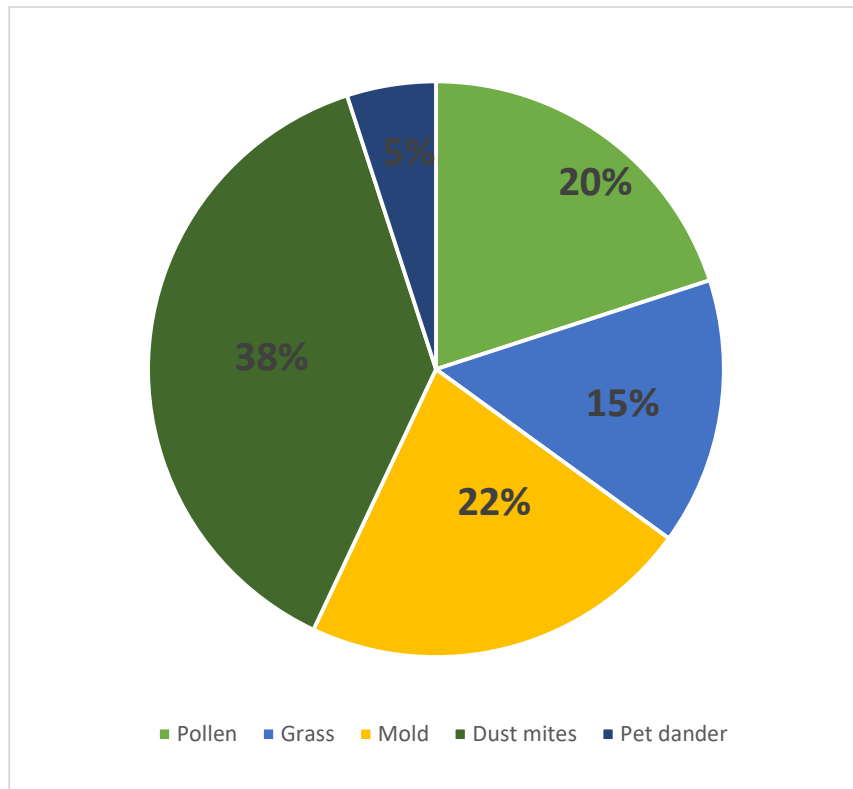


Figure 9: Seasonal allergy symptoms triggering substances

Discussion: Many substance influences seasonal allergies symptoms. As per survey 38% participants replied that Dust mite has been triggered their seasonal allergy symptoms. 22% participants retorted that Mold has been worsen their seasonal allergy symptoms, 20% responders retorted that pollen has been worsen their seasonal allergy symptoms & 15% responders replied that grass has been triggered their seasonal allergy symptoms.

5.8 Taken measures to alleviate seasonal allergy symptoms

Q: Do you take any measures to alleviate your seasonal allergy symptoms?

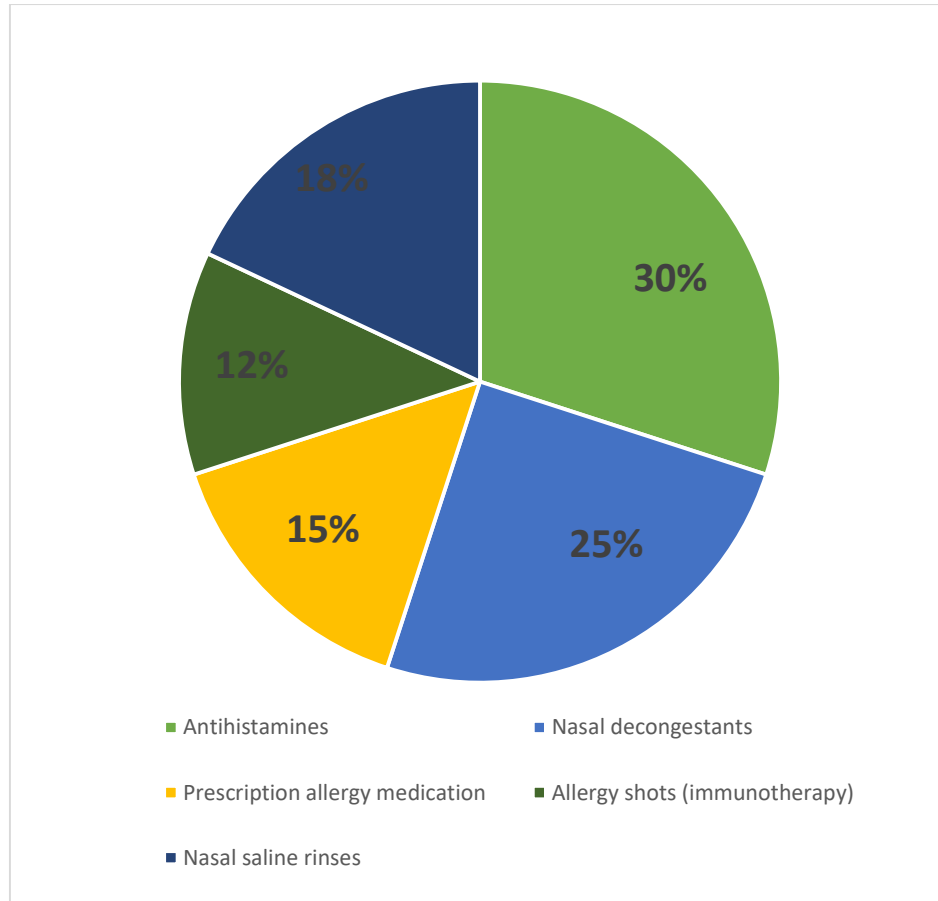


Figure 10: Taken measures to alleviate seasonal allergy symptoms

Discussion: As per this investigation 30% participants replied that they have been taken antihistamines to alleviate seasonal allergy symptoms. 25% responders retorted that they have been taken Nasal decongestants to alleviate seasonal allergy symptoms, 18% responders retorted that they have been taken Nasal saline rinse to alleviate seasonal allergy symptoms & 15% responders retorted that they have been taken prescription allergy medication to alleviate seasonal allergy symptoms.

5.9 Affect daily life and activities during peak allergy seasons

Q: How do seasonal allergies typically affect your daily life and activities during peak allergy seasons?

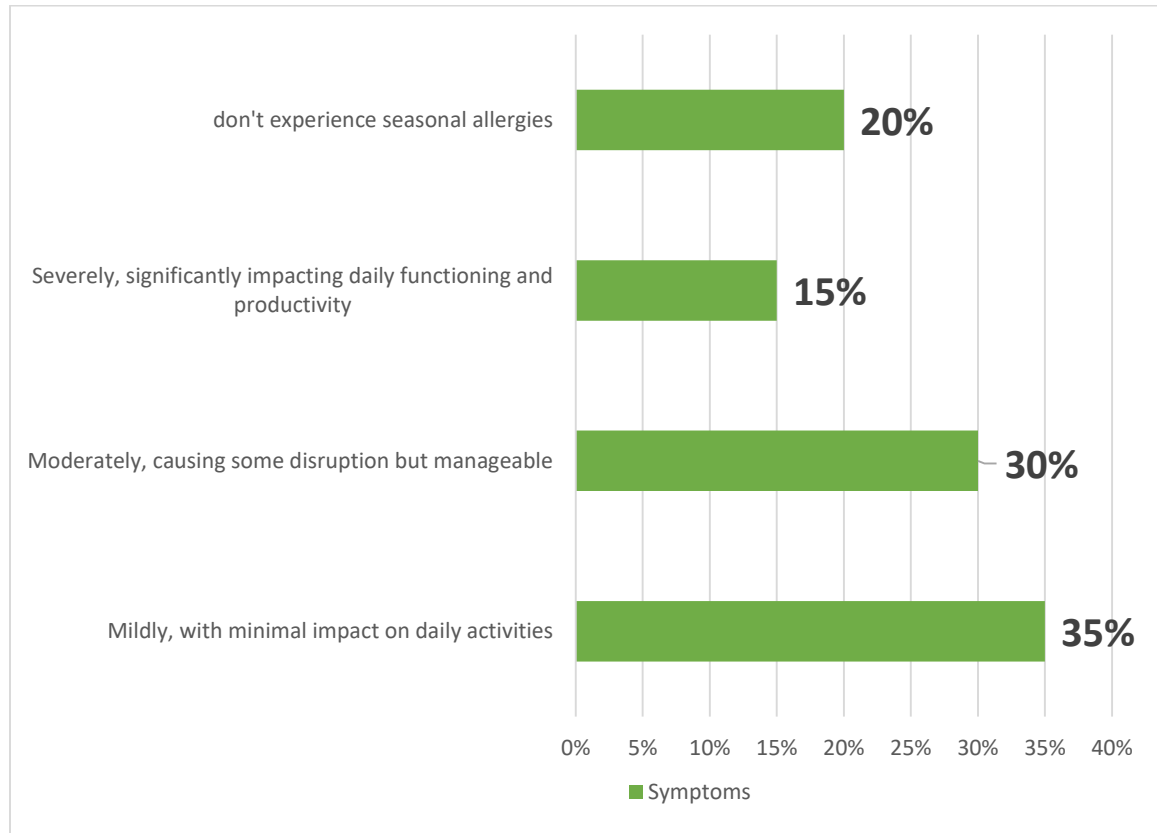


Figure 11: Affect daily life and activities during peak allergy seasons

Discussion: In this survey 35% responders retorted that seasonal allergies has been affected mildly, with minimal impact on daily activities during peak allergy seasons. 30% responders retorted that seasonal allergies has been affected moderately, causing some disruption but manageable during peak allergy seasons & 15% responders retorted that seasonal allergies has been affected severely, significantly impacting daily functioning and productivity during peak allergy seasons.

5.10 Taken medicine without doctor suggestion

Q: Have you ever been taken medicine without doctor suggestion?

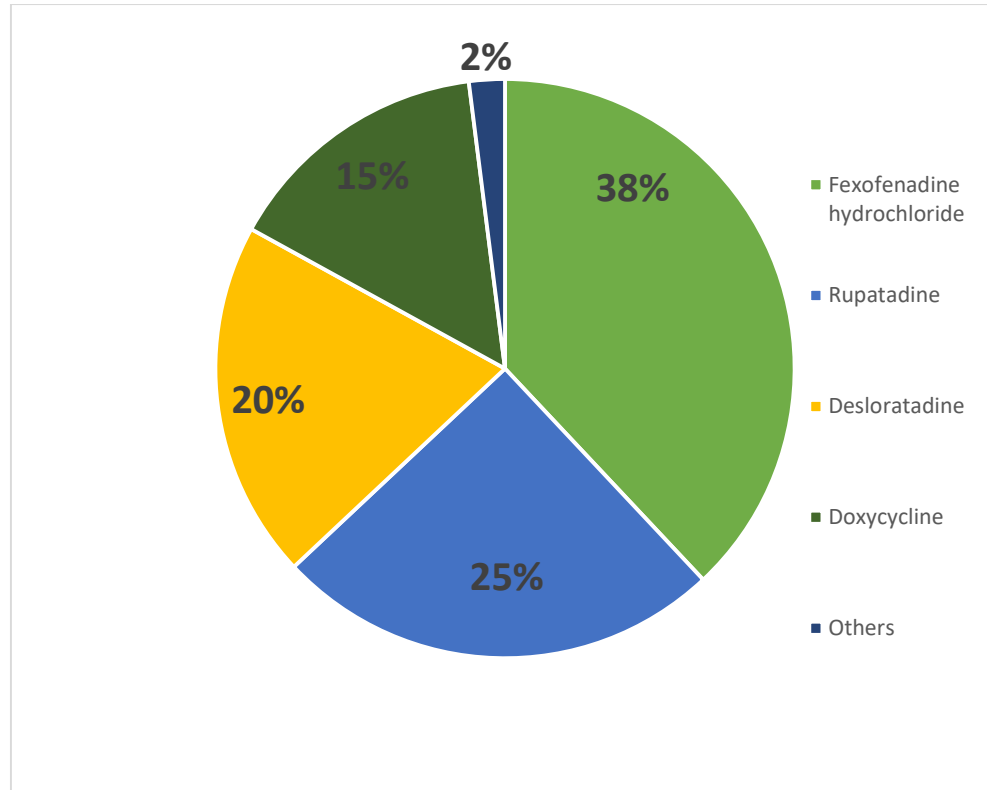


Figure 12: Taken medicine without doctor suggestion

Discussion: Taking medicine without first consulting a doctor can be dangerous as it can lead to serious health problems and possibly death. One of the biggest worries is the likelihood that taking treatment without first visiting a doctor exposes you vulnerable for negative effects. Most people are unaware of over-the-counter medications. A sizable portion of survey respondents (38%) acknowledged using Fexofenadine, 25% replied that Rupatadine, 20% retorted that Desloratadine & 15% said Doxycycline without a prescription from a physician.

5.11 Side effect of allergy treatment

Q: Have you experienced any side effects from your allergy treatment?

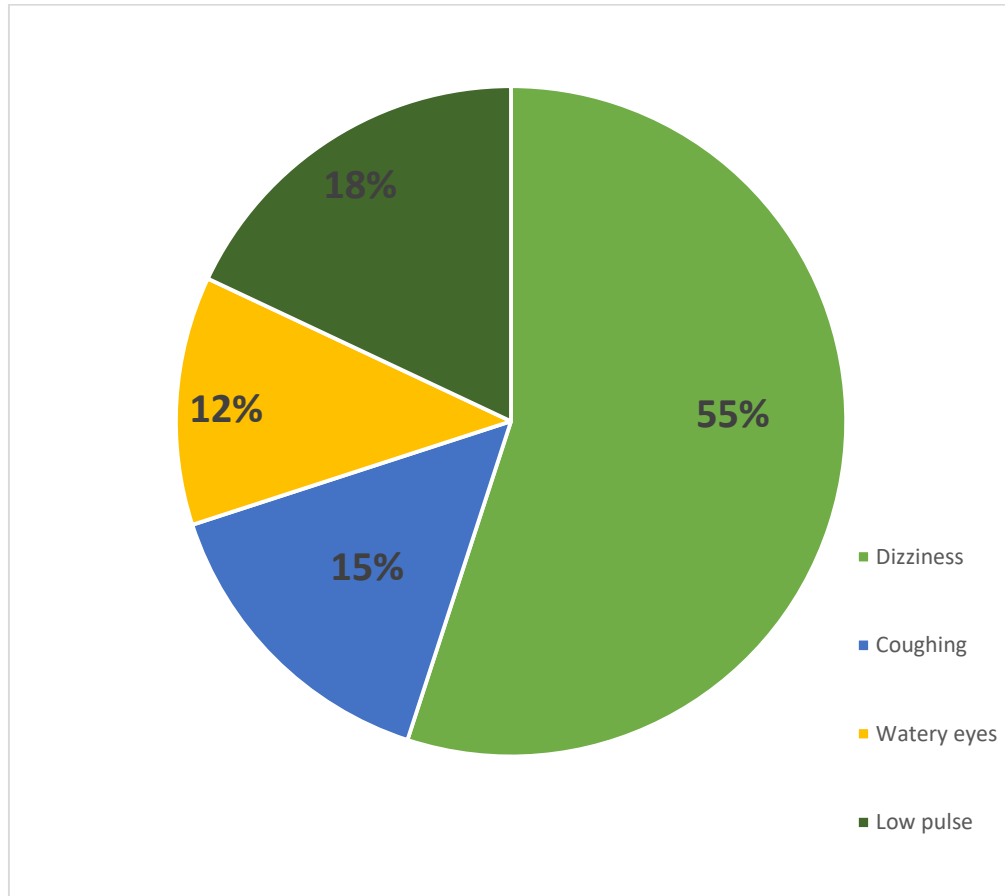


Figure 13: Side effect of allergy treatment

Discussion: Many people use a variety of drugs to control the symptoms of their allergies. Majority of the responders have been replied that they have been felt Dizziness, 18% retorted Low pulse, 15% said coughing & 12% replied watery eyes.

5.12 Taken measures to prevent seasonal allergies

Q: Do you take any measures to prevent seasonal allergies?

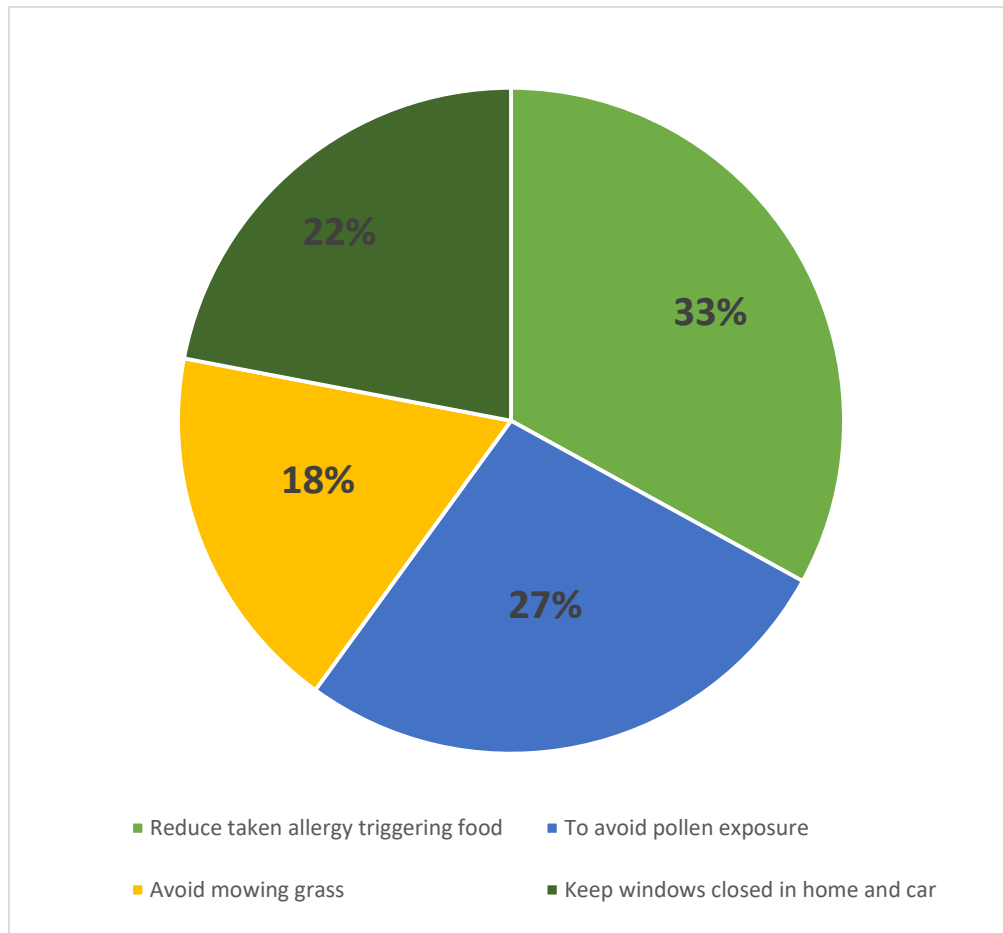


Figure 14: Taken measures to prevent seasonal allergies

Discussion: Different person has been taken many ways to prevent seasonal allergies. As per this survey 33% participants have been replied that they have been reduced taken allergy triggering food to prevent seasonal allergy. 27% participants have been replied that they have been avoided pollen exposure to prevent seasonal allergy, 22% participants have been replied that they have been kept windows closed in home and car to prevent seasonal allergy & 18% participants have been replied that they have been avoided mowing grass to prevent seasonal allergy.

5.13 Mental condition of allergic patients

Q: Are you mentally retarded when have you been affected seasonal allergy?

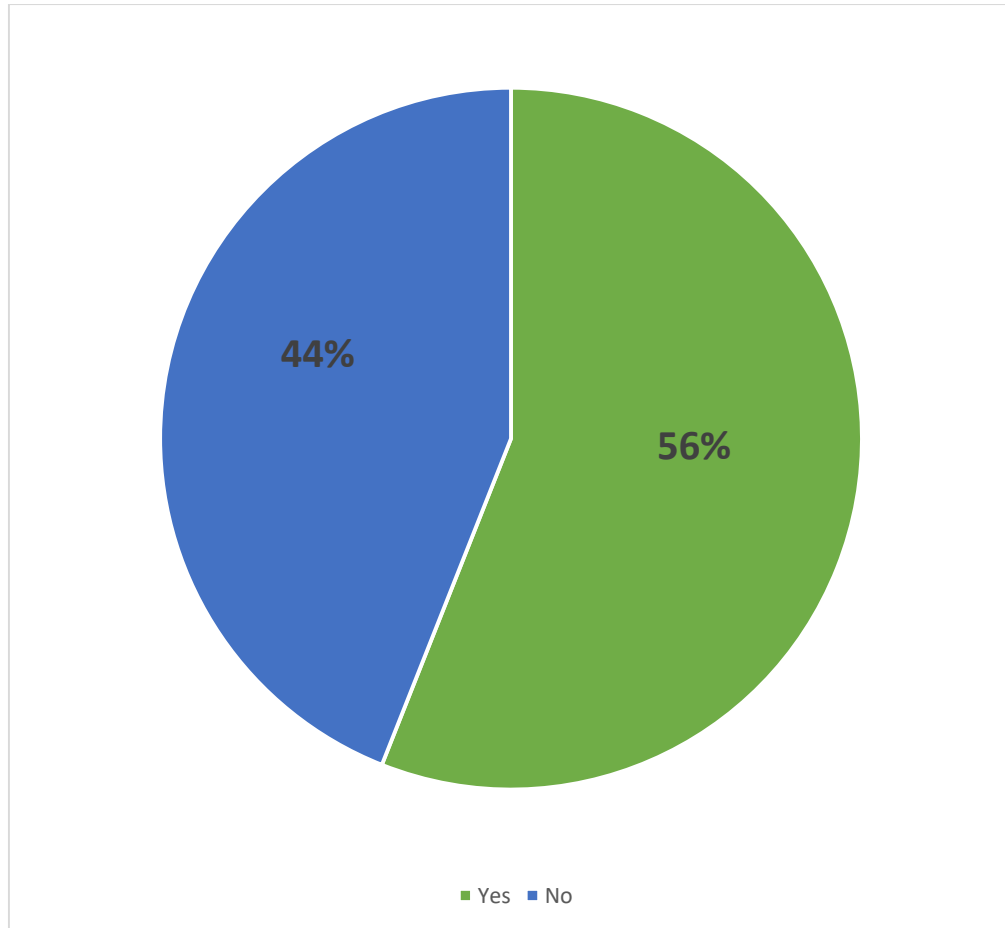


Figure 15: Mental condition of allergic patients

Discussion: Itching, watery eyes, congestion, and sneezing can cast a shadow on the beauty of spring. Although the physical symptoms are obvious, an increasing amount of investigation indicates that people who have hay fever or allergic rhinitis frequently suffer from psychological conditions like anxiety and sadness. According to the assessment 56% participants replied that they have been mentally retarded for their allergic symptoms.

Chapter 6

Conclusion

6.1 Conclusion

In conclusion, this survey sheds light on the significant impact of seasonal allergies on individuals' lives, highlighting their prevalence, treatment approaches, and associated complications. The findings underscore the importance of heightened awareness, early diagnosis, and effective management strategies to alleviate symptoms and enhance quality of life for affected individuals. As per this chart, majority of the responders 50% replied that they have been experienced most allergy symptoms in winter season. As per this survey 25% participants retorted that they have been felt runny/stuffy nose symptoms during seasonal allergies. In this assessment 52% responders retorted that they have been experienced occasionally seasonal allergy symptoms during peak allergy seasons. As per survey 38% participants replied that Dust mite has been triggered their seasonal allergy symptoms. 22% Mold, 20% pollen & 15% responders replied that grass has been triggered their seasonal allergy symptoms. As per this investigation 30% participants replied that they have been taken Over-the counter antihistamines to alleviate seasonal allergy symptoms. 25% responders retorted that they have been taken Nasal decongestants to alleviate seasonal allergy symptoms, 18% Nasal saline rinse & 15% prescription allergy medication to alleviate seasonal allergy symptoms. In this survey 35% responders retorted that seasonal allergies has been affected mildly, with minimal impact on daily activities during peak allergy seasons. 30% responders retorted that seasonal allergies has been affected moderately, causing some disruption but manageable during peak allergy seasons. As per this survey 33% participants have been replied that they have been reduced taken allergy triggering food to prevent seasonal allergy. By addressing these areas, healthcare professionals and policymakers can better support individuals in managing and mitigating the burden of seasonal allergies, ultimately improving overall health outcomes and well-being.

Chapter 7

Reference

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