

# Allergies. there are People who are Born with Allergies, and there are others who Develop them after Years of Consuming an Aliment without any Problem

Wang Huiqin<sup>1</sup>; Jayasree S Kanathasan<sup>2</sup>; Amiya Bhaumik<sup>3</sup>

**Abstract:-** Survey collected demographic, psychosocial, and allergic data from 108 food allergy sufferers (85% female; 18-87). Following that, participants completed a two-week online diary survey on stress, mood, and energy and a 25-item food allergy checklist (based on iii Study 1) throughout the day. Daily polls show widespread allergies. Food allergies, the cost of avoiding particular foods, the anxiety of food safety concerns, the difficulty of maintaining a balanced diet, and the pressure of social activities centred on food were all issues. Allergy days increased stress and negativity, according to multilevel studies. Seniors were less energetic on allergy days. Rural and suburban communities frequently do better than smaller cities. Character may affect food allergy management. This study supports the first's results While food allergy rates are rising, little is known about its practical effects. This research sought to identify food allergy sufferers' issues, measure how much they affect daily life, explore how demographic and psychological factors affect food allergies, and devise solutions to help them. Study 1's qualitative results informed Study 2's quantitative findings. (2). The first research examined dietary allergies and health-related quality of life. Focus groups with four demographics helped researchers understand food allergy problems. Lifelong consumer susceptibility. Vulnerability depended on demographics, food allergy awareness, prejudice and stigma, pricing and availability of allergen-free choices, food label clarity, and restaurant wait staff skill (external conditions). The second research examined how much food allergy symptoms affected daily living (in terms of stress, mood, and energy levels). An online on food allergy prevalence and stress.

**Keywords:-** Allergies, Allergy issues, Allegen Free Eating, Ailment without any Problem.

## I. INTRODUCTION

It's conceivable people suffer from food allergies if immune system has an abnormal response to specific meals. Allergic responses are often mild, although they may have severe consequences at times. Food allergies may manifest in a wide variety of ways, sometimes all at once for the person suffering from them. A typical symptom is an itchy feeling in the mouth, throat, or ears (Hirsch, 2022).

The immune system defends the body against foreign substances and potentially dangerous infections. Food allergies occur when the immune system mistakes a normally safe food or food component for an invader and launches a protective response. Allergies to specific foods may run in families, but whether or not a particular kid will have his or her parents' sensitivities is hard to predict. A peanut-allergic child may be more likely to transmit the allergy on to his or her younger siblings. There is a broad range of symptoms that may occur due to food allergies. Even if you only had moderate symptoms the first time you ate a certain item, that doesn't mean you won't have far more severe ones the next time around. The immune system responds to danger by producing specific antibodies. Immunoglobulin E, or IgE, is generated by the immune system to aid relieve allergy symptoms. Immunoglobulin E (IgE) functions as a chemical messenger, alerting cells that they must mount a chemical defence against a pathogen. Those who are allergic to normally benign environmental stimuli, such as pollen or animal dander, have elevated levels of the antibody IgE. Certain foods have been linked to an increase in IgE. What is known as "immunological memory" develops in the immune system over time. This is a common and helpful immune reaction that may speed up the body's response time. This is the key to the effectiveness of vaccinations. However, in those who suffer from allergies, this reaction is magnified, and further exposures continue to set up inappropriate immune system responses. This produces an allergic response, which may show as nasal congestion, coughing, sneezing, or even asthma episodes. When an individual is exposed to an allergen, his or her immune system produces IgE antibodies that target just that allergen. Therefore, it is conceivable to have an allergy to a relatively limited number of foods or pollens while having no reaction to the great majority of them (onderzoek, 2019).

### ➤ Background of the Study:

Food is necessary for life, yet it may also kill certain individuals. For those who suffer from food allergies, for instance, ingesting certain cereals, nuts, or seafood requires extra caution, and they must also verify the ingredient lists of everything they consume to assure its safety. It just takes a little bit of the wrong food can set off a cascade of terrible symptoms, all the way from trouble breathing to swelling of the lips and throat to nausea and vomiting to death. It is difficult for governments and health organisations to react to

the growing issue of food allergies due to a lack of data on the prevalence of the condition and its pace of increase. The number of persons who suffer from food allergies is difficult to accurately assess. Disagreements between social and scientific norms might make diagnosis challenging. Identifying the origins of food allergies and keeping tabs on increases in prevalence may be difficult without accurate statistics on the number of people afflicted. Legislative improvements, such as suggestions for food labelling, may be delayed to be implemented by governments when the scope of a problem is unknown (Brazier, 2020).

Different people have different ideas on what constitutes a food allergy, which only serves to further complicate an already challenging disease. According to Bengt Björkstén, a professor of allergy prevention at Sweden's Karolinska Institute, "the term used by common people is definitely different from how it is described by medical professionals," and this discrepancy may be influenced by societal and cultural conventions. Through advocacy, education, and scientific advancement, the Food Allergy & Anaphylaxis Network (FAAN) seeks to increase the general public's awareness of and appreciation for those who suffer from food allergies. "there are still too many circumstances where people do not recognise that food allergy is a medical disease, not a dietary choice," said FAAN CEO Anna Muoz-Furlong, despite the efforts of groups like FAAN. Scientists are curious in regional variances in eating habits and allergy prevalence as the world's cuisines become progressively more homogenised. Researchers want to learn more about observable patterns, such as the higher prevalence of sesame allergy in Israel and the Middle East compared to the rest of the world, and the higher prevalence of rice allergy in Japan and China. Mills believes that the EuroPrevall epidemiology data may be combined with that of other global research, and the collaboration has chosen eight countries to represent geographical regions throughout Europe (budget constraints prohibit them from include more) (FAAN, 2005).

#### ➤ Problem Statement:

*"It's difficult to get an accurate count of the number of people who suffer from food allergies. Disagreements arise while trying to diagnose a condition for which there are several societal and scientific definitions. It is difficult to pinpoint the root causes of food allergies and monitor trends in prevalence without reliable data on the number of persons afflicted."*

In most situations, the start of symptoms occurs anywhere from a few minutes to two hours after intake of the offending substance. After the first wave of symptoms subsides, a second wave may occur between one and four hours later (and occasionally even later). We call this second wave of the reaction a biphasic response. Give the doctor an in-depth account of your symptoms, including when they began and what you ate that seemed to set them off. Don't forget to include any members of the family who have severe allergies. Checkups are useful for identifying and dismissing potential health problems. A skin prick test may be used to detect food allergies. For this test, a little amount of the potentially harmful food is put to the skin of the forearm or

back. A doctor or other medical practitioner will use a needle to puncture your skin and inject a little dose of the medicine beneath the skin. Keep in mind that this test cannot be relied upon to conclusively confirm a food allergy. A blood test (IgE) may detect the presence of immunoglobulin E, an antibody associated with food allergies. The doctor takes a blood sample, which is sent to an outside lab where different meals are tested for responses (Asica, 2022).

You may be asked to avoid potentially problematic meals for a week or two before being encouraged to slowly reintroduce them. Therefore, you may be able to link your symptoms to certain meals. However, not everyone benefits from an elimination diet. An elimination diet cannot tell you whether or not your response to a food is a true allergy or merely a sensitivity. If you have ever had a strong response to a certain item, an exclusion diet may not be the best choice for you. In this in-office process, you will progressively eat the meal that you believe is causing your symptoms. If no reactions occur throughout the test period, you may be allowed to include this item in your diet again. The only way to minimise or prevent allergy responses is to avoid foods that contain the allergen. The best course of action is to avoid consuming anything that might cause an allergic response, but it's important to remember that accidents sometimes happen. Mild allergic reactions may benefit from antihistamines, which may be found both over-the-counter and by prescription. When taken quickly after eating a meal that provokes an allergic response, these drugs may help minimise symptoms like itching and hives. But antihistamines won't help with a life-threatening allergic response. In cases of severe allergic reactions, epinephrine injections and trips to the emergency department may be necessary. Allergy sufferers often carry an epinephrine autoinjector. This device, when brushed against the thigh, releases a single dosage of medicine via an embedded needle (Clinic, 2022).

#### ➤ Research Objective:

Based on the above discussion, the researcher wants to pursue the following objectives:

- To understand the accurate diagnosis of allergies through a focused history and physical examination.
- To investigate the prevalence of allergies for who are born with allergies,
- To examine the prevalence of allergies for others who develop them after years of consuming an aliment without any problem.
- To understand the main reasons for allergies in people.
- To find out the ways to avoid allergies for there are people who are born with allergies, and others who develop them after years of consuming an aliment without any problem

## II. LITERATURE REVIEW

A food allergy is an acute immune system response to an allergic food. Even a little quantity of a food might trigger an allergic response in some people. Some people with food allergies have life-threatening reactions, including

anaphylaxis. Up to 4% of adults and 8% of children under the age of 5 are affected by food allergies. Some children do eventually outgrow their food allergies, but there is presently no therapy for them. Although food intolerance is significantly more common than food allergy, many individuals have the false impression about what defines both. Even though it's bothersome, food intolerance isn't a hazardous condition since it doesn't harm the immune system. Although some individuals are more likely to acquire allergies than others, everybody is at risk for acquiring an allergy at any time. Having a close relative with cancer is an indicator of increased risk. The risk of allergy development in a kid with at least one allergic parent ranges from 30% to 50%. That percentage increases to 60%-80% if both parents have allergy problems. Allergies are sometimes not diagnosed until a person is a newborn or toddler. It's possible that some people's allergies may resolve on their own, but for most people it will be an ongoing issue (Hirsch, 2022).

It is possible to develop allergies at any time of life, even as an adult. Even while adult-onset allergies might seem to emerge out of nowhere, they are often caused by a combination of variables, including environmental exposure, genetics, and immune system alterations. Tree nuts (almonds, walnuts, pecans, and cashews) are among the most common food allergies among adults, alongside peanuts, fish, shellfish (especially prawns and lobster), and other tree nuts. There is no way to protect oneself against adult-onset allergies since it is impossible to identify and prevent all potential allergen triggers. As a result of limiting exposure to novel substances, the immune system becomes more susceptible to allergens, according to recent research (Brazier, 2020).

We also don't know why some individuals have allergies and others don't, particularly when it comes to paediatric allergies. There are probably a number of genetic and environmental variables at work here. The "hygiene hypothesis" postulates that the increase in allergic illness seen in recent decades may be attributed, at least in part, to the widespread use of antimicrobials and the generally high standard of cleanliness in modern society. Adults are not immune to developing environmental allergies. The patient may have always been prone to develop allergies; yet, exposure to the allergen may have increased owing to changes in the patient's environment (for example, a new pet in the family) (Martinis, 2017).

#### ➤ Conceptual Framework:

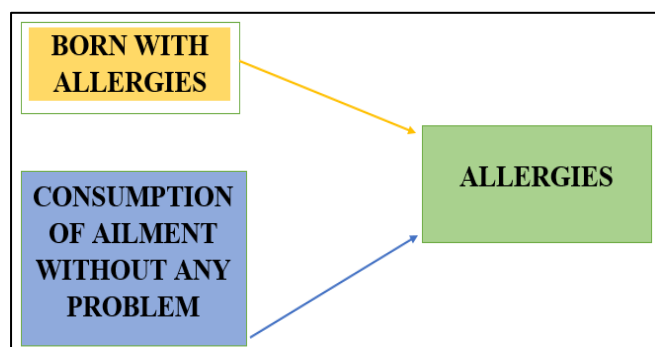


Fig 1 Conceptual Framework

### III. METHODOLOGY

Mixed methods research combines elements of quantitative research and qualitative research in order to answer the research question. Mixed methods can help again a more complete picture than a standalone quantitative or qualitative study, as it integrates benefits of both methods. Researcher will conduct a mixed-method research study, combining qualitative and quantitative approaches, to find answers to the issues stated above. Due to the complementary nature of qualitative and quantitative approaches, a combination of the two is very helpful in elucidating the truth. Over the last two decades, this line of thinking has gained widespread acceptance among experts in the subject.

#### ➤ Sampling:

A survey questionnaire will be developed with items designed to measure allergies, there are people who are born with allergies, and there are others who develop them after years of consuming an aliment without any problem. A pilot study will be conducted with the questionnaire using a group of 30 allergy patients. A total of 1500 questionnaires will be distributed among allergy patients selected in a convenient sampling. All the completed questionnaires will be considered for the study and any incomplete questionnaire will be rejected by the researcher. Qualitative study will be used to assess the factors allergies, there are people who are born with allergies, and there are others who develop them after years of consuming an aliment without any problem by using interviews. The interviews will be mostly telephonic and face to face because of the sensitive issue.

#### ➤ Data and Measurement:

Primary data for the research study will be collected through questionnaire survey (one-to-correspondence or google-form survey). The questionnaire will be divided into two parts – (A) Demographic information (B) Factor determining the causes of there are people who are born with allergies and others who develop them after years of consuming an aliment without any problem. Secondary data will be collected from multiple sources, primarily internet resources.

#### ➤ Statistical Software:

MS-Excel and SPSS 24 will be used for Statistical analysis.

#### ➤ Statistical Tools:

Descriptive analysis will be applied to understand the basic nature of the data. Validity and reliability of the data will be tested through Cronbach alpha. The study will implement regression for data analysis.

### IV. RESULT

A theme analysis was conducted on the transcripts of the discussions that took place during the focus groups using the programme NVivo 9 (QSR International, 2010). This study followed the six-stage methodology first given to the academic community by Braun and Clarke (2006). Most researchers agree that theme coding is a useful tool that may

be used with other types of analysis, such as grounded theory or discourse analysis. The concept stems from the fact that theme coding may be used in conjunction with various methods of analysis. But Braun and Clarke (2006) maintain that theme coding is a legitimate research strategy so long as specific steps are taken and the theoretical orientation of the study is made clear. They specify that the predetermined procedures must be followed for theme coding to be regarded a methodology. They think this is OK as long as the research is explained clearly. I've settled on theme analysis as my study's approach since it may be employed independently of other research methodologies. I employed a semantic strategy, which entailed first organising the data in such a manner as to display patterns, and then analysing the relevance of the patterns, along with the wider meanings and implications of the results. Seeing trends in the data led me to this method's development. Because of this, I was able to draw conclusions about the data's deeper implications and interpretations. After discussing the matter with my primary supervisor, it became clear to me that I was responsible for completing the coding and doing the necessary analyses. Due to the fact that I have a food allergy myself, I was able to provide a unique insight into the problem by analysing the data from the point of view of an insider with personal experience in the topic. However, I was also cognizant of the fact that an individual's perspective on their own experiences with disease and related phenomena may be heavily influenced by factors such as their age, gender, socioeconomic status, culture, and the society in which they reside. Not only that, but the culture in which individuals are immersed may also have a major bearing on how people make sense of their personal encounters with sickness and related phenomena. I was also cognizant of the fact that the culture in which they are steeped may have a role in deciphering their words. With this information in hand, I was able to approach my investigation as a disinterested outsider. Being aware of my dual identity as an insider and an outsider allowed me to think about how my perspective may change depending on the circumstances. This allowed me to take measures to mitigate the negative effects of each position while making the most of the positive ones (for example, I was open with participants about my own food allergy and recognised that each person's experience could be different). What's more, I was proactive enough to maximise the opportunities presented by each job. Being conscious of my status as either an insider or an outsider allowed me to account for the ways in which this may have affected my study results. The major goal of the thematic analysis performed as part of the research was to provide a detailed description of the whole data set. Because of this, we were able to accomplish. The inductive strategy I used while reading the transcripts was comparable to the grounded theory method. Finding common threads and organising the data into manageable chunks was a fascinating task to me. Nonetheless, my familiarity with the difficulties of living with food allergies was valuable throughout the whole coding process, and my opinion of the themes' overall significance influenced the names that were decided for the codes that were finally chosen. The themes were refined during the coding process and were organised into three levels: overarching, underlying, and surface. The importance of the

different themes was determined by considering both how often each theme came up in conversation and how the themes were discussed by the participants (for example, the emphasis or tone of the discussion, the degree of emotion). The unifying aspect in this assessment was whether or not there was consensus both inside and between focus groups. Table 3.2 provides further and detailed information on the approaches I used to finish the theme analysis. Two perspectives, consumer vulnerability and health-related quality of life, were used in my analysis of the data (see section 3.2.1 for details). The health-related quality of life approach focused more on the challenges that affect the lives of people with food allergies and measures to improve their quality of life, while the consumer vulnerability method focused more on the experiences of living with food allergies in general. My findings found that persons who suffered from food allergies had an overall poorer quality of life. Our research drew on these two methods in a number of different ways.

## V. CONCLUSION

Before and after receiving an allergy diagnosis, people with food sensitivities go through a variety of consumer sensitivity phases. They might experience this at any time. These phases may occur either before or after they are tested for allergies. The times being described here might be classified into two main groups: before and after a person receives a diagnosis. This is true both before and after the evaluation has been completed by administering an allergy test to the patient. Each stage may occur at a different period in a person's life depending on their own characteristics. This is something that may happen at any moment in their lives. There are several factors surrounding food allergies that need to be considered. Prejudice and stigma, the cost and accessibility of allergen-free options, product transparency, and the expertise of service workers at eateries all play a role. This chapter adds to the general public's understanding of what it's like to have a food allergy, which may help reduce prejudice and stigma while also increasing the availability of meals that are free of these substances. This chapter also helps educate the general public on the realities of living with a food allergy. Furthermore, this chapter's content helps to educate the general public on what it's like to have a food allergy. In addition, the information presented in this chapter may help the general public comprehend what it's like to deal with an allergy to anything outside food. As an added bonus, this chapter raises awareness among the general public by providing some insight into what it's like to live with a food allergy. This provides insight into the experience of having a food allergy. It provides insight into the experience of having a food allergy. The added benefit of raising awareness among a wider audience about what it's like to have a food allergy is also significant. Because of this, more people will learn about what it's like to have a food allergy. This helps to educate a wider audience on what it's like to have a food allergy and how it might impact one's life. Customers with food allergies may find comfort in knowing they are not alone in their experience. A large number of people suffer from this illness. It's possible that this will provide some more durability down the road. If they inquire of other customers about how they



manage their condition, and pay attention to the feedback they get, they stand a better chance of learning how other customers have adjusted to and learned to live with it. They may learn from other customers' experiences with the same issue and develop strategies for coping with it. In addition, they could inquire how other customers handle their situation by asking them questions.

## VI. LIMITATION

All research has its drawbacks. The research will involve participants which is a modest sample size. The purpose of this study is to determine the impact of allergies, both in those who are born with them and in those who acquire them later in life, via the use of a questionnaire. This research is a cross-sectional analysis of how patients generally feel about their allergies. In addition to the patient's medical history, a physical examination will be analysed.

## REFERENCES

- [1]. Asica. (2022, 07 14). Food allergy and intolerance. Retrieved from Better Health Channel: <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/food-allergy-and-intolerance>
- [2]. Brazier, Y. (2020, 12 10). Aditya Sky Park Residency, Nager. Retrieved from Medecal newstoday: <https://www.medicalnewstoday.com/articles/263965>
- [3]. Center, A. (2021, 04 15). Pollen and Mold Levels. Retrieved from Our Blog, Carolina Asthma & Allergy Center: <https://www.carolinaasthma.com/blog/what-causes-a-person-to-develop-allergies/>
- [4]. Clinic, M. (2022, 04 13). Food allergy . Retrieved from ACAAI Public Website: <https://acaai.org/allergies/allergic-conditions/food/>
- [5]. Ginaldi, L. (2017, 04 08). Allergy and Aging: An Old/New Emerging Health Issue. Retrieved from Pubmed central : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5362176/>
- [6]. Hewings, Y. (2017, 10 10). Medicalnewstoday. Retrieved from <https://www.medicalnewstoday.com/articles/319708>: <https://www.medicalnewstoday.com/articles/319708>
- [7]. Hirsch, L. (2022, 01). Food Allergies. Retrieved from Food Allergy Research and Education Network (FARE): <https://kidshealth.org/en/parents/food-allergies.html>
- [8]. Martinis, M. (2017, 04 01). Allergy and Aging: An Old/New Emerging Health Issue. Retrieved from Pubmed central: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5362176/>
- [9]. FAAN (2005) Public Comment on 2005 Food Safety Survey: Docket No. 2004N-0516 (2005 FSS). Fairfax, VA, USA: Food Allergy & Anaphylaxis Network onderzoek, V. (2019, 11 19). Johns Hopkins Medicine. Retrieved from Food Allergies.: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/food-allergies>