

CHAPTER I

INTRODUCTION

1.1 Background

Allergies is a common condition in which the body's immune system start over reacting to what usually is a harmless substance in the environment. It can occur in infants as young as. It has been estimated to have affected about 10% to 30% of adults and up to 40% of children globally by 2013, and the trends from the last 3 decades show that the numbers are only increasing over the years, where in a study done by Balqis et al. (2025), it is found that there are about 25% of children around the ages of 6-7 years and 13-14 years in 56 countries suffers from allergic rhinitis. This also includes Indonesia, where its prevalence is estimated to be around 10-20% with the average age of onset of 8-11 years (Sulistyorini et al., 2025). Although the higher number can be attributed to the improvements in healthcare infrastructure and increased reach of access to such diagnostic examinations and various other health and medical support, allowing parents to check and diagnose their children for any possible allergies, this is still a cause of concern to consider when allergies can affect the health of the children in question, especially food allergies, which can severely limit children's nutritional intake and lead to stunting (Salsabila et al., 2021), and rhinitis allergy, which affects the respiratory system of the children. In worse case scenarios, allergies can cause severe anaphylaxis, a potentially life-threatening reaction of the immune system that affects multiple organ systems, from the respiratory, cardiovascular, and even the gastro-intestinal systems, causing any number of them to shut down (Lockey, 2019).

However, even with the increase in reach as well as access to medical care, many people in Indonesia still have misconceptions about allergies in general (Balqis et al., 2025). The most common misconceptions being the misdiagnosed nature of allergies itself, often being mistaken as other illnesses, such as measles,

colds, or food poisoning. In other cases, it is simply chalked up to eczema, or atopic dermatitis, which is a condition where rashes form on the body, most commonly seen in young children (Rukmana et al., 2025). Additionally, allergies can emerge suddenly, even when there with no previous history of allergic responses. This lack of awareness may lead to a false sense of security and inadequate preparation, obscuring the true nature of the problem and hinder timely medical intervention.

In certain areas, there are still many who do not understand what allergies even are, the many side effects of allergies, as well as the indirect effects on the health of the body of the patient. In a survey spread by the author on 21 February 2025, with 47 respondents in total, the results shows that there are many parents who are aware of the prevalence of allergies, the actual knowledge of the parents was lower than expected, with only 36.8% answering correctly what anaphylaxis is, and even when they are aware that their children have allergies, 57.9% of the respondents do not keep any particular medicine for allergies in stock. In an interview done by the author with one of said parents, they also mention difficulties in finding reliable information about allergies online, specifically information that would go more in depth about the topic aimed towards the education level of these parents, and had to resort to consulting multiple doctors. This is in line with the lack of published literature on the topic, as reported by (Leung et al., 2024).

At this point in time, as according to the pre-observation studies done by the author, the media that are available for parents that addresses concerns of allergies directly either does not go in depth into the specifics due to being a general health website, or too esoteric to properly understand without a background in the scientific field. Although such websites are useful, it does not break down the specifics into terms that could be understood by the general public. One way to educate new parents about allergies and how to care for a child with allergies is to provide them with resources, such as websites they can access online, or an informative book. However, books that are too esoteric can be confusing if they are too detailed, so making them simpler and more interactive can help the audience get more engaged and remember the content.

1.2 Problem Formulation

Based on the background above, the author identified the following social and design problems:

1. There is a noticeable increasing trend in children suffering from allergies from a young age.
2. There is a lacking in informative media that is targeted towards new parents, with the existing ones being lacking in several key ways, such as either being too general or too esoteric to understand.

And so, the author decided to formulate the problem as follows:

How can we design an informative media to inform parents about early on-set allergies and how to care for their children with said allergies?

1.3 Problem Limitations

This research will contain limitations so that the research does not deviate from the topic that has been set, such as the media that will be designed for the target demographic. The limitations of the problem will include the target audience, which are individuals aged 21-35, with a minimum education level of high school graduates, SES A and B, living in Jabodetabek, as the target audience. The project will focus on early onset allergies, side effects of allergies on health, anaphylactic shock, and first aid for allergic reactions. The design will provide a basic overview of allergies, their symptoms, and side effects, as well as the signs of anaphylactic shock, or in other words, severe allergic reactions. The design will also explore the physical and emotional toll of allergies and provide step-by-step guidance on managing allergies and allergic reactions.

1.4 Goals of Final Project

The goal of this Final Project is to design a website about allergies targeted towards new parents. At this point in time, the media that are available for parents that addresses concerns of allergies directly either did not go in depth into the specifics due to being a general health website or too esoteric to properly understand without a background in the scientific field. Although such websites are

useful, it does not break down the specifics into terms that could be understood by the general public. Books that explain Early Onset Allergies do exist, but very lacking in awareness by the general public. By creating a website that helps parents connect to doctors and the associated resources, it would help widen the awareness in parents in such an increasing problem and prevent avoidable infant and children death.

1.5 Benefits of Final Project

The author hopes that the results of this final project will have the following benefits :

1. Theoretical Benefits:

The benefits of this research is to be able to educate and inform the public, specifically new parents, about the dangers of allergies and how it can develop in children, as well as ways to treat and prevent such a reaction, and can be a reference for any future research that wants to develop other informative media.

2. Practical Benefits:

This project can be used as a reference regarding the information pillars of VCD for lecturers or other students, specifically in designing informative media. This design is also useful as a reference for other students who are interested in designing learning media and topics of elements and principles of fine art. In addition, this research can also be a university archive document related to the implementation of the Final Project.

The website is designed to help young parents in providing and educating them by providing a single place where they can learn and contact various professionals on the specific topic of children's allergies.