

**PERCEPTIONS AND MANAGEMENT OF PAEDIATRIC ALLERGIES
AMONGST REGISTERED HOMOEOPATHIC PRACTITIONERS
IN THE GREATER ETHEKWINI AREA**

BY

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DECLARATION

I, Suvanya Pillay, do declare that this dissertation is representative of my own work, both in conception and execution, unless explicitly acknowledged (including citation of published and unpublished sources). It has not previously been submitted in any form to the Durban University of Technology, or to any institution, for assessment or any other purpose.

Signed _____ on this 7th day of July 2021 at Durban.

DEDICATION

Dedicated to my Guardian Angel and pet,

Scamper.

07.02.2006 – 01.12.2020

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My sincerest gratitude extends to the following, without whom I would not have completed this journey:

God, it was only through Your power that I gained the willpower within to build myself up when I broke down. You are testament that everything that happens, happens for a reason. Your protection in my times of rejection, your light in my darkness, and your strength in my moments of weakness, are all reasons that I will never fail you.

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ABSTRACT

INTRODUCTION

Paediatric allergies in South Africa are of significant concern in respect to the recent increase in prevalence, aetiologies, clinical presentation, diagnosis, treatment, and management thereof. The perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area were of significance in understanding and improving the current knowledge of these from a Homoeopathic perspective. Furthermore, the study provided reliable data in support of the prescription and usage of Homoeopathic treatment. No study on the Homoeopathic treatment and management of paediatric allergies in eThekweni had been conducted. In conducting such study, it expanded the literature of paediatric allergies from a Homoeopathic perspective for the benefit of the researcher, Homoeopathic bodies, parents and caregivers, and the general public. Furthermore, it intended to advocate the use of Homoeopathy as the primary healthcare intervention and first line of treatment for paediatric allergies and associated conditions. The study aimed to explore the perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area with regards to aetiologies and clinical presentation as these presented in practice, and the diagnostic approaches, and treatment and management protocols that they followed.

METHODOLOGY

An explorative, qualitative design was employed to conduct the research study amongst a minimum of 12 Homoeopathic practitioners who fulfilled an inclusion criteria, or until saturation of data via questioning was achieved. Interviews were conducted at the respective participants' consultation rooms located in the greater eThekweni area and captured via audio-recordings. Data was analysed under the supervisor's guidance, and Tesch's 8-step procedure of data analysis was applied, from which themes and sub-themes were formed.

RESULTS

Following data analysis, 4 main themes and their sub-themes were formed, namely knowledge of paediatric allergies with regards to aetiologies, types, and signs and symptoms; diagnosis with regards to clinical presentation and blood tests; multidisciplinary care with regards to referrals and approach to conventional treatment; and treatment and management protocols from a Homoeopathic, nutraceutical, dietary, and educational approach.

CONCLUSION

Homoeopathic practitioners share mutual perceptions and general knowledge of paediatric allergies in spite of limited professional training of allergies that is available to them. Their expertise and knowledge within their capacity was nevertheless trusted by concerned parents or caregivers to accurately identify, diagnose, treat, and manage a suspected allergy as per their patient's totality of symptoms. Furthermore, to flatten an allergic tendency with indicated Homoeopathic treatment and appropriate adjuncts so as to prevent any possibility of a subsequent allergy. However, practitioners ought to consider the possible impact of elimination diets on their patients and families, as nutritional deficiencies, malnutrition, emotional stress, and financial expense are all causes of concern. Further clinical evidence is required to advocate them, for which practitioners may consider in their diagnostic, treatment, and management protocol. While Homoeopathy was not the primary option of treatment for their patients' allergic conditions and concerns, it nevertheless remains a successful modality of CAM for the treatment thereof.

GLOSSARY

Atopy	A genetic predisposition to develop a hypersensitivity reaction and produce elevated immunoglobulin E levels upon exposure to an inhaled or ingested antigen (Justiz et al, 2020).
Dennie-Morgan folds	A bilateral infraorbital fold or crease caused by oedema in atopic dermatitis (Medical Dictionary for the Health Professions and Nursing, 2012).
Desensitisation	A treatment method to develop temporary tolerance or insensitivity to a sensitising agent (Memon et al, 2020).
Immunotherapy	The treatment of allergic disease that stimulates, promotes, suppresses, or desensitises the immune system (Memon et al, 2020).
Lactase	An enzyme in the small intestinal brush border that hydrolyses lactose into absorbable forms of glucose and galactose (Malik and Panuganti, 2020).
Lichenification	The process by which skin thickens and darkens with exaggerated skin lines (Aboobacker et al, 2020).
Materia medica	The body of remedial substances that is used in the composition and practice of medicine (Merriam-Webster.com Dictionary, 2020).
Miasm	A toxic or noxious influence on the body that renders an individual susceptible to inflammatory or infectious diseases (Gulati, 2010).

Nosode	A Homoeopathically prepared remedy that is produced directly from a component of infectious disease, or indirectly from a tissue assumed to contain it (Rieder and Robinson, 2015).
Nutraceutical	A dietary supplement that is derived from natural food components with pharmacological properties (Ghaffari and Roshanravan, 2020).
Similimum	The Homoeopathic remedy that most accurately encompasses the totality of the case (Bala and Srivastava, 2019).
Skin impedance	The response of a specific skin region to an externally applied electrical current (Lu et al, 2018).
Triacylglycerol	A form of fat in cow's milk (Crowe, 2019).
Vital force	The energy force within the body that accounts for health thereof, as it resists a causative disease agent and restores balance thereafter (De Schepper, 2001:12).

ABBREVIATIONS

AAFA	Asthma and Allergy Foundation of America
AD	Atopic Dermatitis
AFSA	Allergy Foundation of South Africa
AR	Allergic Rhinitis
CAM	Complementary and Alternative Medicine
CAST	Cellular Antigen Stimulation Test
ELISA	Enzyme-linked Immunosorbent Assay
FA	Food Allergy
GIT	Gastrointestinal
HR	Hypersensitivity Reaction
Ig	Immunoglobulin
RAST	Radioallergosorbent Test
SPT	Skin-prick Test

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CHAPTER 1: OVERVIEW OF THE STUDY

1.1. INTRODUCTION

Paediatric allergies in South Africa are of significant concern in respect to the recent increase in prevalence, aetiologies, clinical presentation, diagnosis, treatment, and management thereof. The perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area were of significance in understanding and improving the current knowledge of these from a Homoeopathic perspective. Furthermore, the study provided reliable data in support of the prescription and usage of Homoeopathic treatment.

No study on the Homoeopathic treatment and management of paediatric allergies in eThekweni had been conducted. In conducting such study, it expanded the literature of paediatric allergies from a Homoeopathic perspective for the benefit of the researcher, Homoeopathic bodies, parents and caregivers, and the general public. Furthermore, it intended to advocate the use of Homoeopathy as the primary healthcare intervention and first line of treatment for paediatric allergies and associated conditions.

1.2. RESEARCH PROBLEM

Paediatric allergies in the greater eThekweni area with regards to aetiologies, clinical presentation, diagnosis, treatment, and management.

1.3. AIM

To explore the perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area.

1.4. OBJECTIVES

- To investigate the perspectives of Homoeopathic practitioners with regards to aetiologies and clinical presentation of paediatric allergies as these presented in practice.
- To investigate the diagnostic approaches, and treatment and management protocols that Homoeopathic practitioners followed.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION TO THE HUMAN IMMUNE SYSTEM

The human body has the ability to safeguard itself against foreign and harmful invaders via non-specific (innate) and highly specific (adaptive acquired) defensive mechanisms. The innate immune response is the body's first line of defence against microbial or pathogenic invasion via epithelial barriers and immune cells. The skin and respiratory, gastrointestinal, and urogenital tracts all barricade the entry of microbes or pathogens. However, should they breach the epithelium they are engulfed by macrophages – a type of white blood cell that produces cytokines to exacerbate an inflammatory response (Justiz et al, 2020).

The adaptive acquired immune response is initiated via specific lymphocytic action and substances (i.e. immunoglobulins and cytokines) in response to microbial or pathogenic invasion. It is characterised by:

- 1) Specificity – a particular antigen,
- 2) Heterogeneity – a multitude of antibodies against antigens, and
- 3) Memory – an amplified response in recognition of antigens (Justiz et al, 2020).

2.2. INTRODUCTION TO ALLERGIES

When the body is exposed to a foreign substance – such as chemical or environmental irritants, inhalants, proteins in foods, medications, or pathogens – it interacts with the immune system. Antibodies, or immunoglobulins, are produced in response to these certain allergens or antigens. An immune reaction to these trigger factors is an allergic reaction (Stear, 2011). According to the AFSA (2020), a third of the South African population will suffer a form of allergy in their lifetime. Children constitute 40% of allergy sufferers. Allergic diseases are the most common chronic diseases of childhood; from eczema, asthma, and AR (hay fever), to urticaria, FA, and anaphylaxis.

Asthma (being the commonest) cannot be cured, but can be controlled and managed with regular treatment. Asthmatic children may face limited participation in school activities and

sports. AR, or hay fever, affects 20-to-30% of the population, while as much as 40% may also be affected by undiagnosed asthma (AFSA, 2020). Mismanaged AR is proven to impair learning ability amongst school children, and the use of sedative antihistamines exacerbates the learning disability. Both asthma and AR are interrelated to atopic eczema – a common, chronic, pruritic skin rash. Affected children may lack sleep at night and concentration at school. The appearance of the rash (especially once affected) may discourage their confidence in their physical appearance, as they are victim to bullying and social exclusion. Consequently, they fail to reach their optimal academic potential (AFSA, 2020). FA is an adverse reaction to a protein in the food; it may be either IgE-mediated or non-IgE-mediated. Food-specific IgE antibodies bind to immune cells (basophils, macrophages, mast cells, and B lymphocytes). When a food protein passes through the mucosal barrier and comes into contact with cell-bound IgE antibodies, it releases mediators that initiate an immune response – smooth muscle contraction, vasodilation, and mucus secretion. The release of cytokines from activated immune cells leads to prolonged inflammation and systemic effects that involve the skin, respiratory tract, gastrointestinal tract, and cardiovascular system (Lopez, Mendez, 2018). Anaphylaxis is a severe, life-threatening (if not fatal) allergic reaction. It is a medical emergency due to its rapid onset. Certain foods, venoms, medications, and latex may result in anaphylactic shock if not medically treated (AFSA, 2020).

2.2.1. TYPES OF REACTIONS

An HR is an immune response that is elicited by an antigen or allergen. Two classifications of HRs exist (immediate and delayed), which are further classified into 4 types – type I, type II, type III, and type IV (Justiz et al, 2020). The first 3 types are regarded as immediate HRs, as their onset is within 24 hours. They are mediated by IgE, IgG and IgM antibodies. The last type is regarded as a delayed HR, as its onset is between 12-to-48 hours. It is mediated by T lymphocytic cells.

Type I or Anaphylactic Response

IgE antibodies are produced in response to allergic proteins and bind to immune cells (basophils, macrophages, mast cells, and B lymphocytes). These release histamine granules that initiate an immune response – smooth muscle contraction, vasodilation, and mucus

secretion. The release of cytokines from activated immune cells leads to prolonged inflammation and systemic conditions that involve the skin (allergic dermatitis), eyes (allergic conjunctivitis), respiratory tract (AR, bronchial asthma), and gastrointestinal tract (FA) (Lopez, Mendez, 2018; Justiz et al, 2020). A type I HR may result in anaphylactic shock (Justiz et al, 2020).

Type II or Cytotoxic-Mediated Response

IgG and IgM antibodies are produced in response to cell surface antigens and extracellular matrix proteins, and damage cells through phagocytosis. This type of HR is present in certain autoimmune conditions such as thrombocytopenia, haemolytic anaemia, and neutropenia (Justiz et al, 2020).

Type III or Immune-complex Reactions

IgG and IgM antibodies are produced and bind to soluble antigens to form antibody-antigen complexes. These activate the complement system, trigger inflammation, and cause tissue injury as in vasculitis and glomerulonephritis (Justiz et al, 2020).

Type IV or T-cell-Mediated Hypersensitivity

T cells are produced in response to exogenous antigens or autoantigens (Justiz et al, 2020). These, together with macrophages and dendritic cells, produce cytokines that trigger inflammation and destroy host cells (Tshabalala, 2017).

2.2.2. ALLERGY VERSUS INTOLERANCE

An adverse reaction to food may constitute a FA or a food intolerance, which often leads to a misinterpretation of the 2 due to their similar symptomatology. However, they are distinguished via their immune pathway. A FA reaction follows the exposure to an ingested food protein, thereafter activates IgE-mediated antibodies, and initiates an immediate onset of symptoms. In contrast, a food intolerance is a delayed, nonimmune-mediated response to the consumption of any non-protein food component. The most common to that of lactose, results from a lack or an absence of lactase, or a sensitivity to triacylglycerol (Crowe, 2019).

2.2.3. AETIOLOGIES AND PREDISPOSING FACTORS

The exposure of dietary and inhalant allergens to atopic children predisposes them to the development of IgE antibodies. There is often an interrelation or co-existence amongst IgE-mediated food allergies, asthma, and AR – the improvement of one condition may result in the development of another (Chad, 2001). The ability to treat, manage, and prevent allergic conditions depends on the understanding of the underlying immunology and contributing factors that lead to their development and presentation. Currently, the allergic child approach is to identify potential children, avoid potential allergens in early life, and recognise developing allergies. During infancy, the immature defence system is acted on following the exposure and absorption of allergens, mainly food allergens, via immature mucosa (Chad, 2001). During adolescence, inhalant allergens – such as pollen, dust, cat, and grass (Seedat, 2018) – are the provoking allergens to which older children develop asthma and AR, following the early manifestation of IgE-mediated food allergies and AD (Chad, 2001). Children with AD are prone to the development of allergies to egg, cow's milk, peanut, wheat, and soy; with egg allergy the most accountable for eczematous symptoms (Gray, 2014).

2.2.4. CLINICAL PRESENTATION

The progression of allergic disease from one organ system to another is interrelated with age – as food allergies are outgrown in early life, respiratory allergies may develop and persist later on. The allergic march – by which this progression is known – affects, but is not restricted to, sensitized children. However, those unaffected by the allergic march are more prone to developing and presenting allergic symptoms in later life (Wickman, 2005). Genetically predisposed individuals develop an oral intolerance that lead to food-induced allergies. An immune-pathogenic pathway (that involves food-specific IgE-mediated antibodies, non-IgE-mediated antibodies, or both) is responsible for adverse reactions to food or food components that manifest as clinical features, signs, and symptoms in multiple body systems. Often, it is the GIT that is affected due to cell-mediated (non-IgE-mediated) hypersensitivities, resulting in gastrointestinal discomforts such as abdominal bloating, abdominal pain, flatulence, diarrhoea, and/or constipation (Di Costanzo and Berni Canani, 2018). Other gastrointestinal disorders such as gastro-oesophageal reflux disease, gastro-enteropathies, proctocolitis, and enterocolitis may, too, result. (Liacouras et al, 2003). Those symptoms of AR are characterised by inflammation of the nasal mucosa, sneezing,

rhinorrhoea, nasal congestion, and pruritus of the nose, eyes, ears, palate, and pharynx. Other accompanying symptoms include postnasal drip and a non-productive cough (Akhouri and House, 2020). According to Manjra (2010), many affected patients present with allergic facies, which is characterised by allergic shiners, facial pallor, nasal creases, and the allergic salute. AD, which is characterised by eczematous lesions and lichenification (Kolb and Ferrer-Bruker, 2020), is often consequent to a combination of both pathways. The ingestion or exposure to the responsible allergen triggers an immediate (within half an hour to 2 hours) or delayed (within 2-to-3 hours, to 2-to-3 days) onset of IgE-mediated and cell-mediated responses respectively (Sabra et al, 2003). The clinical presentation of eczema is attributed by compromised integrity of the skin barrier, and complex cellular interplay in the skin immune system (Gray, 2014).

2.2.5. DIAGNOSIS

Allergy diagnostic knowledge remains poor amongst health professionals despite allergy disease progression amongst patients (Gupta, 2010). The importance of differential diagnoses is emphasized due to the similarity of symptomatology between non-allergic food-induced responses and true allergic responses (Levin, 2009). An accurate diagnosis will ensure health professional reliability, improved patient compliance to treatment and management protocols, and unnecessary emotional distress from elimination of foods and removal of domestic animals (Hawarden, 2014). The diagnosis to the potential allergic child follows a systemic approach that includes an intensive clinical history, a physical examination of the body system in question, laboratory investigations (SPTs and IgE antibody serum tests), trial elimination diets, and oral food challenges (Stear, 2011).

A framework of the Homoeopathic case taking in relation to allergies is structured such that it focuses on the present complaint and the history thereof in terms of onset, evolution, concomitants, suspected exposures, location, duration, frequency, intensity, period of time, and aggravating or ameliorating factors. Other components to the case taking include a detailed and chronological history of previous medical illnesses or interventions; and family, personal, and treatment history. As the Homoeopathic case taking accounts for a patient's totality of symptoms, those of a mental and emotional nature are encouraged to be questioned during physical examination, as physical touch is believed to form a patient-

practitioner connection (Gafoor, 2012). The Homoeopathic case taking plays an integral role in the success of Homoeopathic treatment especially that for paediatrics, as children require undivided attention and observation from the Homoeopathic practitioner and a detailed description of their behaviour and symptomatology from the parent and/or caregiver. In relation to the relevant materia medica, it enables the practitioner to arrive to a conclusive selection of the most suitable Homoeopathic remedy (Aghadiuno, 2002). However, the assessment of children and adolescents may challenge the practitioner to extract accurate information from the patients, themselves, especially if their ability to communicate is restricted by their age or a verbal disability. Therefore, the practitioner ought to remain attentive to other informants such as parents and/or caregivers. Despite the tendency of discrepancies in their report, information from multiple sources is a requirement for paediatric case diagnosis and management (Srinath et al, 2019). While each case is unique in its own respect, an individualised approach to conversation, observation, and examination with attention to its unique expressions may reveal the true case picture (Gafoor, 2012).

Following a detailed clinical history, a physical examination paves the basis for a conclusive diagnosis. That for AR involves an anterior rhinoscopy to examine the nasal mucosa for swelling and/or nasal polyps, and a clinical observation for allergic shiners, transverse nasal crease, habitual respiration, and frequent throat clearing. In addition, an oropharyngeal exam may indicate a postnasal drip, and an otoscopy may assess for Eustachian tube dysfunction (Akhouri and House, 2020). In the case of asthma, a chest exam and auscultation of the lungs to detect wheezing or whistling may be performed. An examination of the skin is a simple method in the diagnosis of AD (AAFA, 2020).

The essence of a diagnosis relies primarily on a comprehensive history than on diagnostic tests, which are useful to confirm a patient's history. It ought to include details of the reaction such as the onset of symptoms and the nature of substances implicated. Tests confirm clinical history, as they merely indicate sensitisation or non-specific cross-reactivity; therefore it is significant to interpret any positive test result in the context of the clinical history (Spickett and Van Rooyen, 2020). Despite their indication for allergic potential, they are unable to measure the degree of the allergic reaction (AFSA, 2020). The AFSA (2020) advocates 2 primary tests to confirm or rule out immediate reactions, namely SPTs and ImmunoCAP®. The mechanism of SPTs enables the indication of both aeroallergen and food allergen sensitivity via a transdermal lance with a droplet of the concerned allergen in comparison to a positive control

(histamine dichloride) and negative control (glycerinated saline histamine). Following a 15 minute reading, the presence of a wheal >5mm, or a reaction to the tested antigen that is greater than that of one to the negative control, is a positive result (Birch and Pearson-Shaver, 2020). The degree of allergic potential and sensitivity depends on the measurement of the reaction (AFSA, 2020). An ImmunoCAP® test scans for IgE antibodies to various specific allergens in a patient's withdrawn blood, which depends on his/her clinical history and area of residence (AFSA, 2020). Of the test are 2 multi-allergen mixes; one of foods such as egg, milk, peanut, fish, soy, and wheat (RAST); and the other of multispecies aeroallergens such as house-dust mites, pollens, moulds, and animal dander (Phadiatop). In the event of reactivity, individual allergen tests with the same blood sample may be useful in the indication of sensitivity, or the degree thereof (AFSA, 2020).

The tests for delayed reactions include ImuPro® and CASTs. The ImuPro® test is an IgG-specific blood analysis to detect elevated levels of antibodies to specific food proteins, while the CAST is a highly specialised basophilic marker for foods, food additives, aeroallergens, venoms, latex, and drugs. Such testing is not supported by many allergy associations, possibly due to false positive test results via cross-reactivity of antigens. Nevertheless, emerging literature supports that IgG testing is valuable as a guide for elimination diets in the improvement of symptoms (WellPro, 2020).

According to the AFSA (2020), complementary allergy tests (e.g. Vega) are not evidenced in the diagnosis of FA. The non-invasive procedure involves 2 electrodes (in the patient's hand and on an acupuncture point) between which an electrical circuit and allergen-contained test vials exist. Following the application of a minimal voltage, the impedance of the skin is measured (Kelso, 2018). It is an expensive approach to receive inaccurate results that unnecessarily impacts patients' nutrition (AFSA, 2020). The substitution of IgE testing with Vega testing by some practitioners poses a risk to truly allergic patients following the reintroduction of allergenic foods (Kelso, 2018).

Many practical advances have been established in the diagnostic and management framework for allergies within the South African context, which include those for FA, AD, and AR (Pentz, 2014). The following schematics illustrate general algorithms for in-vitro testing of the abovementioned allergic conditions:

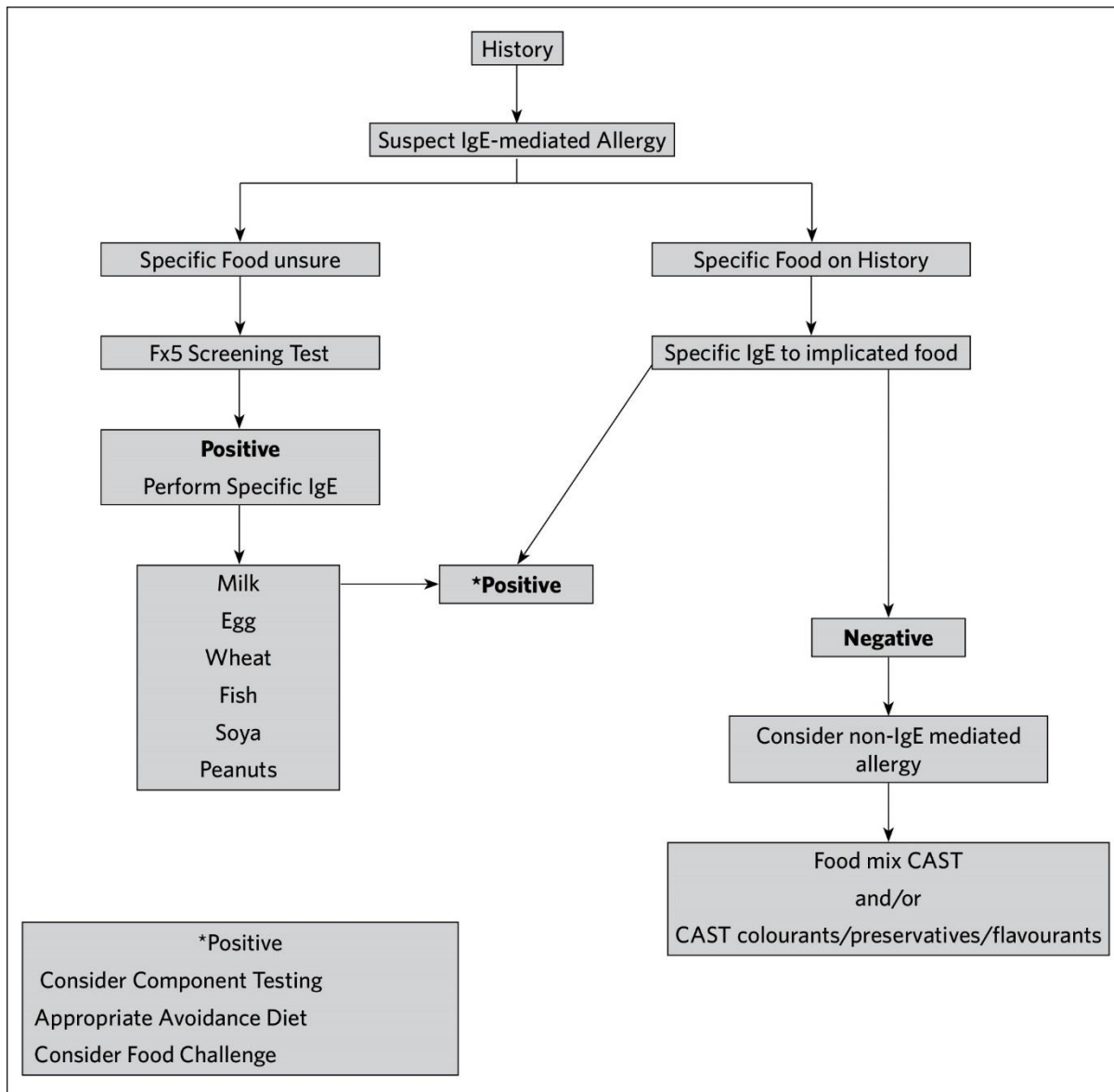


Figure 1: Diagnostic Algorithm for In-Vitro FA Testing (Hawarden, 2014).

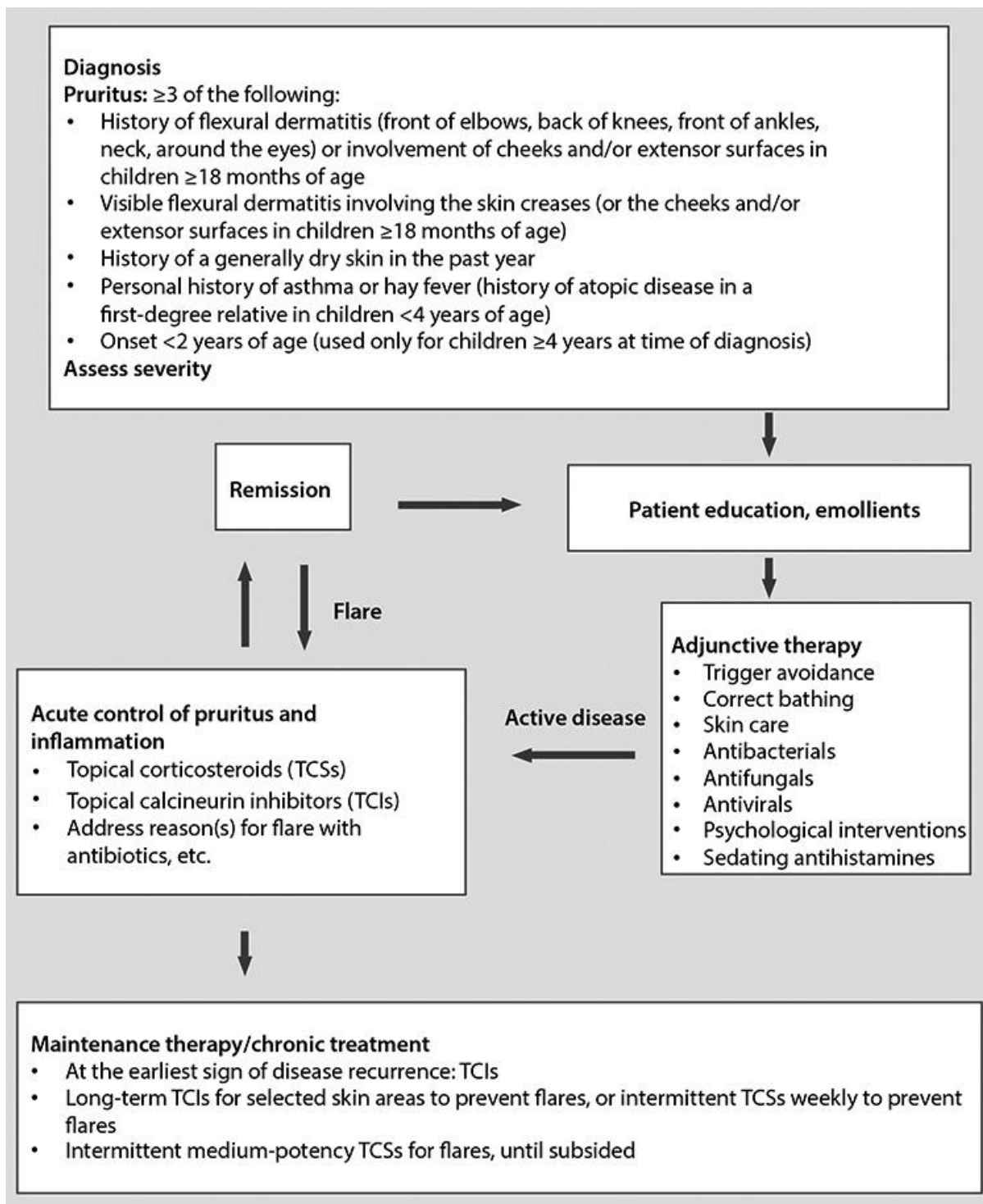


Figure 2: Diagnostic for AD Testing (Pentz, 2014).

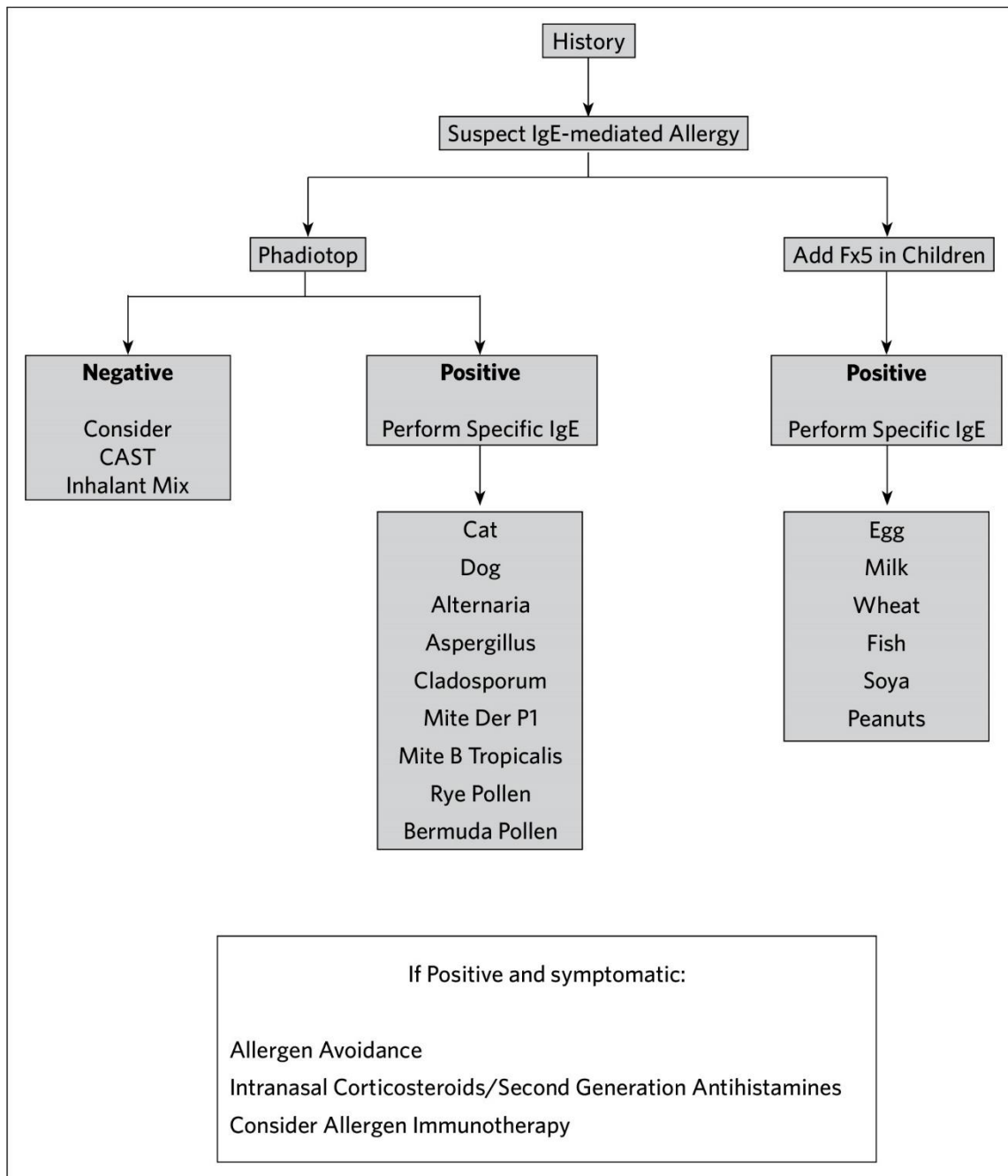


Figure 3: Diagnostic Algorithm for In-Vitro AR Testing (Hawarden, 2014).

2.2.6. TREATMENT

2.2.6.1. CONVENTIONAL

The use of conventional medications in young children is reserved due to the uncertainty of its safety and efficacy, especially when their body organs and immune system are in the process of development, physiological interaction, and maturation. Despite the avoidance of

contraindicative medications in pregnancy, the administration of common medications in newborns disregards the fact that their body systems are still immature and delicate enough to be affected by them (Harripershad, 2009). The standard line of conventional treatment for respiratory allergic disease remains oral and intranasal antihistamines, decongestants, and steroids, leukotriene receptor antagonists, and immunotherapy. Despite scientific evidence to advocate its alleviation in nasal and respiratory symptoms, routine use of antihistamine and steroidal medications is not recommended due to their systemic adverse effects such as dry mouth, urinary retention, constipation, and/or tachycardia (Akhouri and House, 2020). With exception to immunotherapy, medications as abovementioned are suppressive in nature and, in hindsight, inhibit the natural expulsion of nasal discharge (Harripershad, 2009). For patients in whom pharmacotherapy is ineffective, subcutaneous or sublingual immunotherapy ought to be considered (Akhouri and House, 2020).

2.2.6.2. HOMOEOPATHIC

Homoeopathic treatment is based on the principle that a substance that may produce a specific picture of disease symptoms in a healthy individual may cure those very symptoms when present in a diseased individual (Vithoulkas, 1980). The purpose of such treatment for allergic disease is to address the underlying cause of the allergy as opposed to the presenting symptoms of the allergy, itself. As suggested by research, Homoeopathy is a system of medicine that acts as an immune-modulator and an immune-regulator (Terrie, 2014), hence it views allergic disease as an expression of a disturbance in an individual's immune system and treats via restoration of that individual's equilibrium (Dr Batra's, 2017). Classical Homoeopathic treatment often involves the prescription of a 'constitutional' Homoeopathic remedy that is individually selected on the constellation of a patient's mental, emotional, and physical symptoms within his or her entirety. Homoeopathic practitioners who prescribe constitutionally contend that such treatment may significantly relieve acute and chronic ailments, and subsequently improve or cure the patient's allergic state (Ullman, 2010).

The practice of this gentle yet effective system of medicine is governed by a set of principles as formulated by the founder of Homoeopathy, itself, Dr Samuel Hahnemann (De Schepper, 2001: 43). The Law of Similars – on which the absolute principle of Homoeopathy is based – describes that a substance, when administered in large doses, may produce a specific picture of disease symptoms in a healthy individual, yet may cure those very symptoms when

administered in minute and diluted doses to a diseased individual (De Schepper, 2001: 26-27). The Law of Simplex suggests the prescription of a single, simple Homoeopathic remedy that most accurately encompasses the totality of the case (i.e. a similimum) (Chauhan and Gupta, 2007). This allows explicit evaluation of any effects of the remedy subsequent to the administration thereof (Vithoulkas, 1998: 217). Since it individually acts on the patient's vital force, it is impractical to overstimulate and obscure it with more than 1 remedy. Therefore, it ought to be singularly prescribed at a given time (De Schepper, 2001: 29-32). Lastly, the Law of Minimum explains the reduction of the drug dose via succession of trituration at every step of dilution with the employment of alcohol or lactose (Chauhan and Gupta, 2007).

A significant misconception of allergies in the eyes of Homoeopathy is the assumption that the allergen is 'the problem'. However, Homoeopathic practitioners seek to prescribe the Homoeopathic remedy that will fortify the patient's immune system, as opposed to a treatment protocol that will suppress the patient's allergic symptoms or avoid the allergen as a means of remaining 'healthy' (Ullman, 2010). Van Wassenhoven (2013) stated that cohort survey studies amongst children with asthma, general allergies, and skin allergies indicated positive outcomes in their quality of life with the use of Homoeopathic treatment. Prophylactic hay fever remedies included *Arsenicum album*, *Nux vomica*, *Pulsatilla pratensis*, *Gelsemium sempervirens*, *Sarsaparilla*, *Silicea terra*, and *Natrum muriaticum*. Asthma remedies included *Arsenicum iodatum*, *Lachesis muta*, *Calcarea arsenicosa*, *Carbo vegetabilis*, and *Silicea terra*. Eczema and urticaria remedies included *Mezereum*, *Lycopodium clavatum*, *Sepia officinalis*, *Arsenicum iodatum*, *Calcarea carbonica*, and *Psorinum*. He concluded that the selection of the Homoeopathic remedy depends on other presenting symptoms and 'constitutional' features (Van Wassenhoven, 2013). According to Grundling et al (2012), a study that assessed symptoms of patients with allergic conjunctivitis, AR, bronchial asthma, and neurodermatitis indicated that they improved substantially with Homoeopathic treatment, and that conventional medication dosage reduced substantially. Naidoo and Pellow (2013a) investigated the use of Homoeopathically potentised cat saliva and histamine dihydrochloride (*Histaminum hydrochloricum*) in ninth centesimal Hahnemannian dilutions (9CH), in cat dander allergy. They concluded negative SPTs and desensitisation to cat dander following the use of the above Homoeopathic complex.

2.2.7. MANAGEMENT

Generally, the primary management of allergies include 4 approaches: avoidance, education, pharmacotherapy, and immunotherapy. An appropriate elimination diet that avoids the responsible allergen is implemented and often supervised by a registered dietician; the patient and the parent are educated on alternative nutritional sources to the allergen; and therapies (e.g. epinephrine auto-injectors) in the event of contamination or unintended consumption are actioned. Provided that the allergen is correctly identified and completely omitted from the diet, the elimination diet may not be successful. An accurate diagnosis identifies if food is the cause of the allergic disease under investigation, and if so, to identify the causal food or food ingredient, itself. This allows proper instruction to avoid the necessary causal allergen and prevention of unnecessary food restrictions when a suspected FA is not truly present (Chapman et al, 2006).

2.3. ALLERGIES IN SOUTH AFRICA

According to section 28 of The Constitution of South Africa, a child is defined as a person below 18 years of age. The Department of Health of South Africa deems that a child holds the legal capacity to consent to medical treatment from 14 years of age. A child below the legal age for independent medical treatment requires consent from a parent, legal guardian or other designated person. Paediatrics within the legal South African context is defined as persons from 1 year to 14 years of age, therefore a paediatric patient refers to one within this age range.

Knowledge and literature regarding allergies, or the frequent presentation of adverse reactions to allergens, remains scarce in South Africa (Stear, 2011). Affected patients tend to consult with healthcare facilities or practitioners who lack sufficient allergy training, which results in a lack of standard diagnostic procedures, specific treatment and management protocols, and referrals to allergy specialists (Ewan, 2002). Consequently, this may result in poor management, misuse of prescribed medication and poor compliance with elimination diets. Patients and parents thereof self-diagnose via online or laymen sources and rely on alternative interventions (Stear, 2011).

Representative data on the epidemic of FA in many developing countries, including South Africa, is minimal. It was until 2 significant FA prevalence studies – “FA prevalence in South African children with AD” (Gray, 2017) and “FA prevalence in an unselected population of 1–3-year-old children in South Africa” (Gray, 2017) – that were conducted in the South African setting within the past 5 years that indicated an increase in FA prevalence in selected and unselected South African populations, attributing to the emerging epidemic of FA that the country currently faces. Gray (2017) investigated allergies to cow’s milk, hen’s egg, peanut, wheat, soy, and fish amongst 100 children from the ages of 6 months to 10 years (median age 42 months) with moderate to severe AD. It was concluded that the rate of FA was increased and equivalent to that in similar studies in developed countries, as the overall rate of sensitisation to at least 1 common food allergen was 66% and the prevalence of proven FA was 40%, most commonly to egg (25%) and peanut (24%).

Gray (2017) also investigated the prevalence of food sensitisation and challenge-proved IgE-mediated food allergies in urban and rural South African toddlers (Botha et al, 2019). SPTs to egg, peanut, cow’s milk, fish, soy, wheat, and hazelnut, were performed on a total of 1583 participants (1185 in urban Cape Town and 398 in rural Eastern Cape). Open oral food challenges were performed on those participants with SPT responses of a minimum of 1mm, and a history of intolerance, to a minimum of 1 food. The results indicated a higher prevalence of FA and food sensitisation in urban children than in rural children; most commonly to raw egg white, cooked egg, peanut, cow’s milk, and fish. It was concluded that the prevalence of FA in urban areas is significantly higher than that in rural areas, and that the rate in Cape Town may be compared to that in industrialized middle-stratum countries (Botha et al, 2019).

Despite the diagnosis and management of allergic disease that constitutes a significant component in private practice, there exists a lack, or absence of recognition, for adequate allergy training worldwide (Kaliner et al, 2006). The increase in paediatric FA, together with its risk of anaphylaxis, and the unpredictable nature of food-induced hypersensitivities, urges the need for allergy education and training for primary healthcare professionals (Gupta, 2010). South Africa currently offers sub-specialized allergy training (Diploma in Allergology) via the College of Medicines of South Africa to general medical practitioners, paediatricians, and physicians only (Potter, 2009). Registered Homoeopathic practitioners in South Africa share a scope of practice relatively similar to that of medical practitioners, and are recognized as primary healthcare practitioners but are not included in allergy training (Harripershad, 2009).

CHAPTER 3: METHODOLOGY

3.1. STUDY DESIGN

An explorative, qualitative design was employed to conduct the research study. The intention of such design in the field of healthcare was to explore the participants' personal experiences, observations, and interpretations of a particular matter in question. It served to attain their perspectives and approaches within a healthcare system (Holloway, Wheeler, 2010).

3.2. STUDY LOCATION

The research study was conducted at the respective participants' consultation rooms located in the greater eThekweni area. This ensured a sense of professionalism between the researcher and the participants, privacy, and minimal disturbance.

3.3. STUDY POPULATION

3.3.1. SAMPLE SIZE

The target population for the research study was a minimum of 12 Homoeopathic practitioners who fulfilled the inclusion criteria as specified below, or until saturation of data via questioning was achieved.

3.3.2. INCLUSION CRITERIA

- The participant must have been a registered Homoeopathic practitioner with the Allied Health Professions Council of South Africa (AHPCSA).
- The participant must have been in full-time or part-time practice for a minimum of 5 years.
- The participant must have had experience with paediatric patients.

- The participant must have been a resident practitioner in the greater eThekweni area.

3.3.3. SAMPLING

A non-probability purposive sampling method was employed to recruit the participants. The researcher consciously selected Homoeopathic practitioners who successfully fulfilled the inclusion criteria and who provided informed consent.

3.3.4. PARTICIPANT RECRUITMENT AND INTERVIEW PROCEDURE

The researcher identified potential participants via Medpages – a contact database for healthcare providers in South Africa. The researcher also approached the AHPCSA and the Homoeopathic Association of South Africa (HSA) that distributed a request for participation to all practitioners (Appendix B). The researcher telephoned or E-mailed (Appendix C) all of the potential participants, informed them of the research study to be conducted, and offered them the opportunity to voluntarily participate in it. Practitioners who were willing and who fulfilled the inclusion criteria received a Letter of Information (Appendix A), and were required to provide written informed consent (Appendix A).

3.3.5. DATA COLLECTION

Following a 2-week response margin, the researcher scheduled a brief interview (approximately 30 minutes) with each participant. The researcher conducted and facilitated the interviews in English according to the interview guide (Appendix D). The interviews were captured via audio-recordings in order to accurately preserve the participants' words. Data collection continued until data saturation was achieved, or a minimum sample size was met. Saturation was considered to apply when no new data emerged during collection, when new data was obtainable, or when additional coding was no longer probable (Bradshaw et al, 2017).

3.4. DATA ANALYSIS

The researcher personally analysed the data under the supervisor's guidance, and applied Tesch's 8-step procedure of data analysis (Creswell, 2014):

- All collected data was transcribed verbatim. Each transcription was read thoroughly, and any emerging ideas were jotted.
- The most interesting interview was selected. Its underlying meaning was identified and noted in the margin of that document.
- The process above was repeated for the remaining interviews. Upon completion, all topics were listed, after which similar topics were grouped in columns.
- The researcher allocated a code (i.e. a word or a short phrase) to each topic and applied that code to the appropriate text.
- The researcher formed themes and sub-themes from these topics. The total list of topics was, therefore, reduced.
- The supervisor with qualitative research experience analysed the data independently, and discussed the identified themes with the researcher.
- The researcher reviewed and applied applicable literature to the data.

3.5. DATA MANAGEMENT AND STORAGE

During the research study, the electronic data (i.e. audio-recordings) was password locked by the researcher. Following completion of the research study, the electronic data and all hard copies will be maintained and stored in its original form for a minimum of 5 years under lock-and-key in the Department of Homoeopathy at the Durban University of Technology to safeguard the anonymity and confidentiality of the research participants. The electronic data will be deleted securely and all hard copies will be shredded after 5 years.

3.6. ETHICAL CONSIDERATIONS

Five principles of medical ethics were adhered to throughout the research study: respect for persons, beneficence, autonomy, confidentiality, and justice (South Africa, Department of Health 2015: 8-9).

3.6.1. RESPECT FOR PERSONS

The research participants were held in high regard, as the researcher preserved their worth, dignity, and value throughout the research study.

3.6.2. BENEFICENCE

The nature of the research study did not pose any risk or discomfort to the research participants. The researcher considered the potential benefits and/or risks that they may have encountered as a result of the research study. Had the researcher believed that it was in their best interests, she would have withdrawn them from the research study without consequence.

3.6.3. AUTONOMY

The research participant's right to self-determination and free will was respected alongside their right to make informed decisions according to their personal beliefs, values, and preferences.

3.6.4. CONFIDENTIALITY

A specific identification number (to which the researcher solely held access) was assigned to every research participant at the onset of the research study.

3.6.5. JUSTICE

The research participants were treated in an equal and unbiased manner throughout the research study.

CHAPTER 4: RESULTS

4.1. INTRODUCTION

Following presents the data that was collected from Homoeopathic practitioners (as per the inclusion criteria) at their respective consultation rooms located in the greater eThekweni area. Data was captured via audio-recordings in order to accurately preserve their words. Data collection continued until data saturation was achieved, or a maximum sample size was met. Saturation was considered to apply when no new data emerged during collection, when new data was obtainable, or when additional coding was no longer probable (Bradshaw et al, 2017). Reported raw data did not suffice to infer theories from, but rather was analysed to identify and indicate concepts. Grouping concepts subsequently consolidated the volume of data to work with (Khumalo, 2015).

Data was analysed under the supervisor's guidance, and applied to Tesch's 8-step procedure of data analysis (Creswell, 2014). All collected data was transcribed verbatim. Each transcription was read thoroughly, and any emerging ideas were jotted. The most interesting interview was selected. Its underlying meaning was identified and noted in the margin of that document. The process above was repeated for the remaining interviews. Upon completion, all topics were listed, after which similar topics were grouped in columns. A code (i.e. a word or a short phrase) was allocated to each topic and applied to the appropriate text. Themes and sub-themes were formed from these topics. The total list of topics was, therefore, reduced. The data was independently analysed by the supervisor with qualitative research experience, following which identified themes were discussed with the researcher.

The aim of the data analysis was to determine the perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area. Outlined as follows are the results in accordance with the objectives of the research study:

- Participant demographics
- Knowledge of paediatric allergies
- Diagnosis
- Multidisciplinary care
- Treatment and management

4.2. PARTICIPANT DEMOGRAPHICS

Data was collected from a minimum of 12 Homoeopathic practitioners at their respective consultation rooms located in the greater eThekweni area. Their demographic data is illustrated as follows:

GENDER	RACE	LOCATION	DURATION IN PRACTICE (YEARS)
Female	Indian	Essenwood	14
Female	Caucasian	Berea	23
Female	Indian	Verulam	16
Male	Caucasian	Westville	24
Female	Caucasian	Berea	40
Male	Caucasian	Berea	> 5
Female	Caucasian	Morningside	16
Female	Caucasian	Westville	18
Male	Indian	Durban North	6
Female	Caucasian	Gillitts	20
Male	Caucasian	Gillitts	> 5
Male	Indian	Bluff	18

Table 1: Demographic Data of Homoeopathic Practitioners

4.3. THEMES

Following data analysis, 4 main themes and their sub-themes were formed, and are illustrated as follows:

MAIN THEME	SUB-THEME
1. Knowledge of paediatric allergies	1.1. Aetiologies 1.2. Types 1.3. Signs and symptoms
2. Diagnosis	2.1. Clinical presentation 2.2. Blood tests
3. Multidisciplinary care	3.1. Referrals 3.2. Approach to conventional treatment
4. Treatment and management	4.1. Homoeopathic 4.2. Other CAM adjuncts 4.3. Dietary 4.4. Advice

Table 2: Overview of Main Themes and Sub-Themes

4.3.1. KNOWLEDGE OF PAEDIATRIC ALLERGIES

There was a collective understanding of the fundamentals of paediatric allergies amongst the majority of the participants, despite the limited professional training of allergies that is available to Homoeopathic practitioners in South Africa. Their overall knowledge and understanding was attributed by commonly shared aetiologies, types, and clinical

presentations amongst their paediatric patients who they consulted or observed in their practices. The distinction between allergies and intolerances was noted amongst the majority of the participants, as it is often that both conditions run parallel, and are consequently misinterpreted.

4.3.1.1. AETIOLOGIES

The majority of the participants described the most common causes of paediatric allergies and intolerances from inhalant, dietary, environmental, artificial, and immunisation sources respectively. Direct excerpts from participants to support this theme follow:

“... Auto-aggressive would be your environmental stuff like pollen, dust, detergents, because so much of chemicals are out there, so lots of kids are very sensitive to all of that.” (P1)

“... House dust mite allergy, mould, spores, generally inhalants.” (P2)

“... I do believe that there are sort of respiratory allergies and those would be most commonly – the most common one is – dust.” (P4)

“... Possibly grasses, and pollens, or animal danders, or those sorts of things might be the next most common ones, but it’s obviously very individual thing.” (P4)

“... The obvious ones are inhalants like dust.” (P6)

“... It’s spring, and there’s wind, and there’s pollen.” (P7)

“... So, from an inhalant perspective it’s any of the dust, and pollens, and cockroach, and cat and dog dander, and things like that, which inhalant allergies are far more common than food allergies as such.” (P8)

“... I think there is quite a percentage that have sinusitis and those sort of things which I would describe to pollen.” (P10)

“... The most common airborne allergen is house dust mites – that’s the large majority – and then the next on the list with airborne would be moulds, and third would be probably cats as airborne allergens.” (P11)

“... The most common allergies that we’re seeing with the sinusitis and things like that is like house dust mites, pollen, grass, those sort of things.” (P12)

“... I’ve noticed that certain children are sensitive to the milk, the formulas that they’re taking, that’s number one. Secondly, it’s the, you know, foods such as eggs and peanut butter, which is common dietary food here amongst my clientele.” (P3)

“... I’d say the most common food sensitivities would be wheat and dairy as the biggies. But, again it’s very individual.” (P4)

“... Dairy! Dairy, dairy, dairy, dairy, dairy, ya – that’s probably – and, then... ya, dairy’s first. Ya, ahead of anything else, ya.” (P7)

“... Dairy starts the whole process, and then it keeps going, and then the others just begin to develop from that, because it creates that gut issue.” (P8)

“... Things like bread, milk – those are the most – gluten. I don’t know if it’s gluten or if it’s all the rubbish they put in the bread, but bread and dairy is probably the most common allergens.” (P10)

“...On IgE its egg, I would say nuts – probably second – ya, those are probably the most common, there are some more minor ones. But, then on IgG it’s just huge. I mean, it’s so variable – from anything, from gluten through to strawberries through to – so it’s very broad.” (P11)

“... We’re seeing a lot of issues where children are allergic to dairy, wheat, they have candida in their gut, or they have like a peanut allergy.” (P12)

“... Also, perhaps maybe the environment, because I see patients from the rural areas as well. So, if (for example) they go to another area, then (it’s) they will complain that it may be the water in that area.” (P3)

“... With regards to pollution, and industry, and things like that, this is the hub for allergies, right.” (P12)

“... If it’s boxed, and packaged, and tinned, and has a shelf life will have chemicals in it, so the kids are highly sensitive. I mean, not just, we all are, and I think that’s the main contributing factor towards all the allergies that we see as opposed to in the past.” (P1)

“... The majority of the foods that we are ingesting today are not of a natural, or a very form of a natural, state. So, it’s very easy for me to say that the child is sensitive (has got an allergy) to – let’s call it a sensitivity to – dairy, or intolerance to dairy, but then the mum buys Coco Pops that has got a colorant in it, and the child could be reacting to that.” (P7)

“... The potentially over-vaccinating the child with an allergenic sort of predisposition may actually encourage the, or fuel the, expression of allergies.” (P4)

“... That, very, very, very definitely the vaccinations are triggering the allergies as well because our immune system is not – also, egg protein is used in a lot of vaccine production coz they culture it in chicken eggs, right. So, there is translocation of DNA, and genetic material that gets into that vaccine, and gets into the person’s system, and they develop antibodies to that immediately.” (P8)

“... I’d say quite a few symptoms that come up straight after the vaccine thing.” (P9)

4.3.1.2. TYPES

The majority of the participants described the most common types of paediatric allergies and intolerances as respiratory, digestive, and dermatological. Direct excerpts from participants to support this theme follow:

“... It would be mostly sinusitis-related.” (P2)

“... Most of the times it is eczemas.” (P3)

“... We’ve got the inhalant allergens, which could manifest as your, sort of your, rhinitis’s, your sinusitis’s, possibly your allergic asthmas.” (P4)

“... Occasionally asthma, but it’s primarily the allergic rhinitis type of symptoms.” (P6)

“... We stop the dairy, and then we’ve got no more sinus problems.” (P7)

“... I think there is quite a percentage that have sinusitis and those sort of things, which I would describe to pollen.” (P10)

“... I would say chronic sinusitis and atopic dermatitis (eczema) is about the same. And, then we would get with the sinusitis (we would get) certain that seasonally developed asthma.” (P12)

“... 90% it could be auto-aggressive allergies, also food sensitivities, food allergies, those are the major things that I see.” (P1)

“... I do also believe that we have got food, if not food allergies, then food intolerances that do sometimes manifest as respiratory symptoms.” (P4)

“... Most often there is a gut component and a food intolerance – that is my opinion. You know, sometimes obviously there’s inhalant reactions, but most of the time it’s an intolerance, and it’s normally a dairy.” (P8)

“... The IgG response is usually (usually) a gut response – especially in kids it’s usually a gut response – but, it can be a skin reaction or an upper respiratory reaction, but still linked to the gut even if there is, or isn’t, a gut response.” (P8)

“... You know, the most common ones would be the skins, and the sinus-rhinitis type picture.” (P11)

“... We also see a lot of children with food allergies.” (P12)

4.3.1.3. SIGNS AND SYMPTOMS

The majority of the participants described the most common signs and symptoms of paediatric allergies and intolerances as respiratory, digestive, and dermatologically related, some of which are interrelated. Direct excerpts from participants to support this theme follow:

“... It would come up as rashes. Eczemas are very common. Runny nose, rhinitis, sinusitis, lots of mucous. So, they just produce a lot of phlegm, a lot of mucous.” (P1)

“... If it becomes seasonal, especially in Durban, August/September, February/March, every year they come back with the same cough-cough-cough, dry cough at night, dripping nose, not discoloured mucous but persistent, doesn't go away, no other causes necessarily.” (P2)

“... You would find that they have a distinct rash that occurs. Most of the time, it's through questioning, and when you've asked them if they've eaten certain foods, then I would notice that this is the situation... You would notice that they will present with eruptions most of the time. They either will get hives, then they will complain as well that after they'd eaten certain foods this is what happened in the morning when they woke up, and you would notice that – basically you would notice that – in the sense of their different reactions.” (P3)

“... A child with a dairy allergy could manifest with sort of increased mucous, or rhinitis, or sinusitis, or those sorts of things.” (P4)

“... A common one is a cough, just a random cough, particularly a night-time cough that keeps coming back or doesn't go away so easily, and often without any sort of fevers or, sort of – just the random sort of stubborn cough is often one.” (P4)

“... Nasal congestion, runny nose.” (P4)

“... Allergy creases on the nose, and they’ve got the allergy salute, where they’re constantly rubbing their nose and rubbing their eyes.” (P4)

“... A chronic nasal discharge of some sort or a post nasal.” (P6)

“... Dennie’s lines, you know, in the corners of the eye (the eyelids, the lower eyelids), itching, rubbing (I can see them rubbing their noses and I’ll ask the parent, or the child if they’re old enough, if they’re itchy somewhere in their nose, ears, eyes, back of the throat).” (P6)

“... So, child has – child’s 100% fine, goes for some ice-cream, and between (anything between) 4 to 8 hours later we start with a snotty nose and coughing, or when the chest is just not clearing.” (P7)

“... It starts with scratchy, itchy eyes, and sneezing.” (P7)

“... Most commonly you’ll see an irritable bowel type’s thing where it’s mostly a diuretic stool or a loose stool coming and going with bloating and cramping.” (P8)

“... Very commonly you’re going to see random skin rashes as well, and from a normal kind of itchy rash that can be thrown ‘eczema’ sort of diagnostic at it (but it’s not really) to an urticaria-type thing even, which obviously can be either an IgE response, but also IgG responses definitely trigger urticaria as well.” (P8)

“... General sinus and upper respiratory, chronic cough, or even what looks like an allergic rhinitis – it looks like an allergic rhinitis – take the dairy out and they stop sneezing. Itchy palate, sneezy, itchy eyes.” (P8)

“... Colicky infant, a runny tummy, baby’s bringing up, fever... Toddlers with asthma, with – well – respiratory disorders, we’re talking about skin disorders.” (P9)

“... Where conditions have become more chronic, definitely, or if there’s a seasonal aspect to it – every spring or every autumn.” (P10)

“... With digestive issues, if it’s chronic – “I’ve got stomach pains”, “I get it after eating something”, or a runny tummy, or even constipation – but it’s more with the chronic-type of patients.” (P10)

“... Chronic rhinitis would be one of the features or chronic post nasal drip.” (P11)

“... In the younger children that’s not necessarily a full-on hay fever presentation, but chronic mucus production would probably be the most common feature – from an airway point of view.” (P11)

“... Obviously dermatitis, what would appear to be like an atopic dermatitis kind of presentation on skin.” (P11)

“... Very bad snoring, very tired in the morning – difficult to wake up. They’d have that almost like a racoon eyes type of situation, they’ll be making funny post oropharyngeal noises when they, you know, irritate the back of their throat, middle ear infections (recurrent middle ear infection).” (P12)

“... Flexure eczemas; so elbows, behind the knees... We’re also starting to see a fair amount of urticaria.” (P12)

“... In terms of tummy issues – always complaining in the mornings. So – if they have dairy intolerance – they have their cereal in the morning, and then they complain. So, parents think they don’t want to go to school, but meanwhile the child’s got like an acute gastroenteritis, itself, or they’re constipated, or they’re bloated. They don’t have enough energy, they’re fatigued, they’re tired – they start gaining a lot of weight.” (P12)

4.3.2. DIAGNOSIS

Similar diagnostic methods for paediatric allergies and intolerances were common amongst the majority of the participants, which included – but were not limited to – case taking and specific blood tests.

4.3.2.1. CLINICAL PRESENTATION

The clinical presentation, or symptomatic picture, of allergic and intolerant paediatric patients relied on a Homoeopathic case taking from them or their parent/caregiver, and a physical examination. Direct excerpts from participants to support this theme follow:

“... Some of it would be clinical, as in what we’ve spoken about, so every September, August/September they come with this same cough, every February/March they come with the same runny nose, itchy eyes, watery eyes, and not linked to anything except maybe the season... Family history, really important.” (P2)

“... I usually do it on the symptomatic basis that they’re presenting on.” (P3)

“... By physical examination and symptoms, case taking... The most pathognomonic really is a throat/pharyngeal examination, you can see the post nasal drip... It is (that’s another reason) how/why/how I’ll diagnose that it’s an allergy. First of all, ask: fever, lack of appetite. Those are definitely to do (will occur in) a viral or a bacterial infection, and they’re very rarely are a factor (they’re not a factor at all actually) in allergens, ya, allergic conditions.” (P6)

“... It’s symptomatic... I work through a process of elimination, and symptomatically you know the child is – it’s spring, and there’s wind, and there’s pollen, and it starts with scratchy, itchy eyes, and sneezing, and so on – then you know that that’s what their sensitivities are there.” (P7)

“... If the symptoms are telling me it’s more than likely an allergic thing then I’m really just going to treat.” (P8)

“... I rely on clinical experience, clinical techniques, a good case history from the mum, of course examining of the patient... Largely, we diagnose allergy as a diagnosis of exclusion after taking into account the bigger, more troubling pathology that could be around.” (P9)

“... In the very small children we don’t test – they’re too young or it’s too invasive – so then it’s a clinical diagnosis based on presenting symptoms, family history.” (P11)

“... We have ways of examining the patient and kind of figuring out what it is... You tend to take a history, and do the Homoeopathic case taking, and generally when you treat – like we get very good results with opening a case with Lachesis 200CH – for asthmatics, we find that it works very well.” (P12)

4.3.2.2. BLOOD TESTS

The majority of the participants deemed the efficacy of specific blood tests only when necessary in order to minimize the least possible trauma to paediatric patients and financial expense on parents/caregivers. Direct excerpts from participants to support this theme follow:

“... Before I actually send my patients out for blood tests, I’ve got this machine called the Vega Diagnostic Scan... It works on an electromagnetic frequency... It does food in absolute in depth categories from all different cheeses and stuff, to even auto-aggressive allergies. I can pick up if its dust, if its pollen, so I rely 95% on my Vega Scan.” (P1)

“... Obviously blood tests if necessary but generally only after a few quite major episodes.” (P2)

“... If it’s necessary for me to send them for blood tests then I will send them to, you know, to detect if we find that we’ve eliminated certain foods from their diet and that they’re not responding to it.” (P3)

“... I would rather do for respiratory or inhalant allergies (I would do) an IgE test through the lab, and the Phadiotop or the RAST inhalants... If they don’t have an elevated IgE but they’ve got distinct sort of allergy symptoms (even if they don’t have gastrointestinal symptoms) I will still consider doing an IgG food intolerance blood test parallel to the food sensitivities if it’s severe enough and if it warrants it.” (P4)

“... It’s purely my knowledge of the body (my knowledge of the body), my knowledge what the body can do – and then, accordingly the blood tests and that tells me (blood tests will always tell you).” (P5)

“... I don’t need to refer for blood tests in order to make the diagnosis but the blood test is sometimes helpful to identify what – particularly if it’s food-related or if there’s animal dander.” (P6)

“... I’m – your normal allergy (the scratch test, allergy) test thing I’m – not too keen on to do on kids and I don’t believe they’re very accurate. And, the other allergy tests I believe that are very expensive.” (P7)

“... I will sometimes do an inhalant IgE panel to check for if it is an allergic type of thing... I don’t send children for blood tests easily because it’s traumatic, right... If we need to (obviously) the blood tests are done and then I would do IgEs there... The ImuPro test... As much as there is still some (plenty) controversy out there as to whether these IgG tests are diagnosable (like whether they’re really valid) there’s a lot of discrepancy out there, and that’s why it’s not accepted mainstream yet, and it’s why it’s not covered by medical aids, and things like that. So, it’s also then price dependent on whether the patient’s parents can afford a R3000, 00 spend on a 90 food allergen test. But, I have found great value in doing those IgG tests... The food intolerance tests I like to do – if symptoms are severe enough and what not (that, or if the patient wants to). ” (P8)

“... I don’t just throw them off on blood tests and so on. It’s invasive, it’s quite – it’s a painful, traumatic experience for the kiddie.” (P9)

“... I’ve done the RAST tests before. There’s also a lab in Westville that does a blood test that’s quite comprehensive but it also depends on cost for parents. They’re lovely tests to have but they can be very costly for parents, so I don’t do them often. I try avoid blood tests with kids wherever I can. Ya, so, but I find that the Homoeopathic remedies often work.” (P10)

“... I do use various IgE tests and I also use Imupro tests – the IgG... So, Phadiotop is a common one for respiratory tract... CAST tests are little bit more rare, but for the really tricky cases, then I’ll do CAST tests.” (P11)

“... We do sometimes use blood tests but is very, very expensive... It’s a combination of your physical examination, using blood tests, and certain cases using Kinesiology to pinpoint what you’re allergic to.” (P12)

4.3.3. MULTIDISCIPLINARY CARE

Homoeopathic practitioners are capacitated to refer their patients to other healthcare professionals, and to treat concurrently with other modes of non-Homoeopathic treatment, primarily allopathic treatment. Unless otherwise necessary, the majority of the participants continued their individual treatment regardless of other interventions.

4.3.3.1. REFERRALS

The majority of the participants reserved their need to refer to other healthcare professionals unless in the event of emergencies, such as acute or fatal conditions, and unsuccessful results from Homoeopathic treatment. The most common choices of referred healthcare professionals were paediatricians and otolaryngologists (ear-nose-throat specialists), and other paediatric specialists respectively. Direct excerpts from participants to support this theme follow:

“... I don’t see why every child that comes to me should be referred. So, I find a way and means of treating all the kids that come to me, so I’ve never referred anyone.” (P1)

“... If there’s no resolution, if the Homoeopathic remedies haven’t worked well enough, if there’s an acute infection which is terribly severe, if they’re going to be traveling very shortly (i.e. flying) and there are acute symptoms... It also depends on the age, overall health of the patient. I mean, a patient could come in, I could take one look at them, and refer them. Or, having dealt with them over a period of time, I may say “look, maybe see the ENT or paediatrician, or we’re not resolving this”.” (P2)

“... Most of the time I see patients that are already chronic. So, if it’s an emergency in that regard I would refer. I didn’t really have to refer a patient to a dermatologist or to any other

professional when it came to skin, because I find that my skin treatment had been successful, and is successful. But, if it's a respiratory tract infection (if I need to if that's the case) I think that's one of the cases I would refer." (P3)

"... I would refer a paediatric patient if they were acutely ill and I was worried that they had some major problem like a pneumonia, or a meningitis, or appendicitis, or an intestinal obstruction, those sorts of things... But, I also refer them for – ya, if we've got a chronic case that isn't getting better..." (P4)

"... I've never yet referred a patient for allergies (a paediatric patient). If there was a severe asthma that was uncontrollable I would refer to a paediatrician... Sometimes, a severe and recurrent tonsillitis I'll refer to an ENT. And, if there is a child that is ill, and I'm treating them in an acute way, and I follow up in 3 days' time – if the child is still extremely ill I will refer them to a paediatrician or a specialist." (P6)

"... I think a lot of the time (paediatric cases) I would refer to a paediatric dietician when there are – well, when I believe that there are some food intolerances... They are equipped to know exactly where the deficiency might end up being if we are withdrawing or holding back on a specific food, and what alternatives, and what we could use otherwise – so it's probably that. But, I mean otherwise if I'm not happy with a result from whatever disease picture I'm treating I'm the first to refer to a paediatrician." (P7)

"... Only if something's critical and they need emergency intervention... Or, something might need to be further diagnosed... I've never referred to a paediatrician but I've referred to a specialist paediatrician like a paediatric rheumatologist, or a paediatric neurologist, or a (the one time) paediatric haematologist I used once." (P8)

"... I haven't referred out as yet but if I had to, then it would be for a fever that doesn't come down, for a fever that's a bit too high, for a child that's not eating, for a child that's had a runny tummy for a while – with vomiting for a while – in fact (paediatrics) it has to be much shorter." (P9)

“... I wouldn’t refer unless I was worried and I felt like I’d tried everything. But, in a case of an allergy I probably wouldn’t refer. I would refer in acutes – if it was a pneumonia, or a bronchitis, or something that I’ve tried – and there’s no change in the patient.” (P10)

“... I do (I will) refer to an ENT, I will refer to a paediatrician, but normally only in cases where there’s an acute-type response, or acute condition that needs like palliative care, or something like that. Ya, between the ENT and the paed those would be my – I don’t (I seldom) refer to like allergy people and so on because they tend to just prescribe the same sort of treatments.” (P11)

“... In certain cases I would refer my patients with severe tonsillitis, or quinsy abscess of the tonsils, and stuff like that, or bacterial sinusitis when it’s very acute, because those are life-threatening conditions... The second time I would refer is if I find that we’re treating the patient, the patient’s getting better, but the patient’s still getting recurrent infections.” (P12)

4.3.3.2. APPROACH TO CONVENTIONAL TREATMENT

The majority of the participants stated that they treat concurrently with allopathic treatment until such that their patients are weaned off it. Provided that it did not subject them to any adverse side effects, their patients continued on any other treatment when introduced to Homoeopathic treatment. Unless participants deemed it permissible to withdraw any other treatment that was non-prescribed, suppressive, or that would not subject their patients to any consequence should it be withdrawn, some participants immediately withdrew that treatment and introduced Homoeopathic treatment. Direct excerpts from participants to support this theme follow:

“... It is a bit more difficult, especially with all the abuse of antibiotics, so if they’ve been treated for a long time with these kind of suppressive treatment, it just makes it a little bit more difficult to work with the child... I take the children off whatever allopathic they’re on. Depending what it is, certain meds they need to be weaned off. Some stuff I just go, you know, cold turkey, you can easily come off that, provided that they’re quite monitored and, you know, the remedy that I give I’m quite confident about.” (P1)

“... I very seldom take any patient off their prescribed medication, unless it's not working and the patient, themselves, is really determined to come off it, or has stopped it. Or, if I feel that their prescribed medication is actually causing harm, or adverse, more side effects, and doing less good and more harm. But, I may start prescribing while they're still on some kind of classic or orthodox treatment, and then suggest as their symptoms improve, to maybe reduce it gradually.” (P2)

“... I just start them on the Homoeopathic medication. I do tell them if they're using the cortisone creams that they will need to stop that, and when they will stop that cream, they are going to see a flare up of their skin. So, they have to bear with it because the cream that I'm prescribing is not going to cause that problem, but it's going to help to treat that problem, but be aware that whatever has been suppressed is going to come up.” (P3)

“... If I don't see any huge harm in that medication, I would treat alongside it. And yes, if we can make the child better so that they perhaps no longer need their medication, and therefore their other practitioner, their GP or their paediatrician, can perhaps withdraw that medication, that's a win... A lot of the time I'm working together with their other practitioner, as opposed to just trying to take over, or stop all other medication.” (P4)

“... If I feel that there's a patient that could (that I could) compromise I say to the mothers, “Please, you're being treated very well. I like you to continue with the paediatric (whoever you have) because the child is reasonably well.”... If the medication is a problem (allopathic) then obviously I will say, “Look, you're on that, we can do this.”... I will never compromise a patient's health to prove Homoeopathy.” (P5)

“... My general approach is always in the first place to be sort of as collaborative or complimentary as possible. I'm very careful to not convey a message that natural, Homoeopathic approach is 'right' and allopathic approach is 'wrong'... I explain to people that basically things like antihistamines, steroids, and so on, they cut the symptoms, but they do nothing about the sensitivity to the products (to the external allergens). So, what we try and do with Homoeopathic medicine is shift the threshold as it were of the immune system, so that it's not as sensitive. The programming – it's partly – it's pretty much a genetic orientation

(allergy, being allergic), so it's not something which can be switched off or switched on through medical treatment in my view." (P6)

"... If the child is on a cortisone pump (which is so commonly the case) well, then we need to slowly – I'll start introducing my remedies slowly... Depending on how long that child has been on for cortisone, and what form is it, what degree, what strength of the cortisone are we using, and then work from there, you know. But, I don't believe in necessarily stopping, and sometimes even if the parents do continue with the cortisone, I work with my parents. I don't believe that – I honestly don't believe that – Homoeopathy is the only form of therapeutic protocol for anything. I think we can work beautifully in conjunction. So, I can support that little soul's system by giving it supporting remedies to compensate and counteract what the complications, or the consequences of that specific medication is... I'm going to leave them on whatever medication they're on, and then we can take it from there. Slowly work, slowly get them convinced, and change their mind about Homoeopathy, and the fact that we can use it with great results and response for things like allergies." (P7)

"... If it's a normal kind of inhalant or rhinitis kind of thing – I'm very quick to take people off their conventional meds and switch to remedies and things, because they're all just suppressive, right, so they're just suppressing the symptoms. So, we want to resolve the condition... Stop the chronic prescriptions and take over with the Homoeopathics. And then, if required – and if they really feel that they need to – then they can use it sporadically. Ideally not and obviously that's part of your – sometimes they're like, "Okay. Well, I actually – when we first went off the meds I was still using it 3 times a week, but actually – only now I'm only using it once in 10 days actually." So, sometimes it can actually be quite a good barometer of how things are shifting sometimes... Gut stuff, intolerances – honestly they're not treated... They're just symptomatically treated... Honestly there's barely actually any conventional treatment that they're given other than a couple of palliative things. So, it's easier enough to stop those... They don't cause any major negative influence by taking people off them... I usually get people to stop the conventional meds, and we switch, and then we use them only as and when if we need to." (P8)

"... It's hopeless – absolutely hopeless – and, it's shocking actually. Kiddies are treated just as adults are being treated. Fair enough the dosage and so on may be reduced; the concentrations and so on may be reduced, but it's virtually the same as treating an adult, and

it's – I find it quite disturbing. Kiddies, infants, are being put on Allergex, and antihistamines, and antibiotics, and steroid inhalants, and it's quite terrible. And – listen, I don't disagree with it – but, I also don't agree that it should be done right now. I mean, at that age in life, because there's no communication – how's the child supposed to communicate with them, you know... Kiddies are being sent to paediatricians for absolutely no reason at all. I mean, a teething child would have crabbiness, they would have fever... They would have runny tummy, but hop off to the paediatrician, and then it's the same, exact same thing – antibiotics, antihistamines, nasal antihistamines, probiotics to cover the antibiotics – it's a bit of nonsense, you know.”
(P9)

“... I find that they can be a little tricky. They definitely don't react as quickly to Homoeopathics as what children do who have been treated Homoeopathically their whole lives... I find that often with those patients I will have to do a course of cortisone in potency, for example, or Phos ac, or, you know, remedies that will help to open up the case and make them a little more responsive. I find they do respond, but often they relapse quite quickly, or their response isn't what I expected; it's not as big as I expected to be. So, it definitely is more tricky if they've been with allopathic doctors for a long time. I don't think the ones off antibiotics makes a huge difference, but definitely the children that come in with chronic problems that have chronically been treated by allopaths are harder to treat.” (P10)

“... I don't typically stop treatment until I've seen an additional response to my medication, and then I might phase it out. So, if parents have already stopped treatment, then I'll obviously start my treatment straight away. If the patient comes already on treatment, I will introduce my treatment. It's very rare that they're 100% controlled, so I'll introduce what I do. And then, when I see that the patient is responding, I will then revisit their existing medication and have a look at what we can withdraw. But, I don't withdraw medication immediately, unless it's extremely unnecessary or heavy-handed or, even in those cases, I would withdraw one thing at a time, especially if there's, you know, corticosteroids or things like that, I wouldn't just withdraw it.” (P11)

“... I don't stop them off it... The brilliant thing about Homoeopathy is it can work through conventional medicine... If we didn't prescribe it, we shouldn't stop it. So, rather than me stopping the medication, I work with – well not all of them like to do it – but, when they see that the patient is not presenting they have to stop the patient with it... I would think that if it's

a serious case like asthma I would tell the parents, “Keep them on all the stuff – we’ll still treat concurrently with the conventional treatment”... Rather than stopping them and having a, like a, healing crisis, so to speak – because we know the Homoeopathic remedy is now going to stimulate the body’s immune system and you can have an aggravation – I’ve worked concurrently and weaned them off it.” (P12)

4.3.4. TREATMENT AND MANAGEMENT

The treatment and management protocol that the majority of the participants followed included Homoeopathic medicines, other CAM adjuncts, and dietary interventions and advice (particularly to breastfeeding, non-breastfeeding, and expectant adult patients). Homoeopathic medicines included prescribed constitutional, similimum, clinical, and desensitisation remedies, and proprietary products. Other CAM adjuncts included phytotherapy, gemmotherapy, and nutraceuticals. Dietary interventions included avoidance or elimination of allergic or inflammatory triggers – such as specific foods and artificial food additives – and moderate consumption of organic, nutritious food. Advice to mothers included exclusive breastfeeding (if possible) to their maximum lactation yield at the maintenance of a moderate organic and nutritious diet that excludes allergic or inflammatory triggers. In the case of lactation insufficiency, advice to mothers included careful selection of feeds with consideration of the source and the ingredients of breastmilk substitutes.

4.3.4.1. HOMOEOPATHIC

The first line of treatment for paediatric allergies and intolerances amongst all of the participants was Homoeopathic treatment, primarily constitutional remedies that were based on the individuality of their patient’s case history and clinical presentation. Additionally, similimums and clinical remedies were prescribed when acutely indicated, and specific allergens in Homoeopathically potentised remedies were administered when desensitisation was necessary. Indicated proprietary products were prescribed when necessary. Direct excerpts from participants to support this theme follow:

“... I take a very detailed case history, so the constitutional remedy is absolutely important. I also treat very clinically. So, depends what I pick up from the case history I would give them various different remedies, so they will never leave here with just one remedy. It’s very, very individualized, very specific for each child that comes through... Constitutionally I do a lot of Pulsatilla, Tuberculinum, Phosphorus, so I think those would be. And then, of course the allergy pills, histamine pills, all the complexes from Natura.” (P1)

“... It really depends on what it is... I generally give remedies in individual doses in powder form. And, I would say if there was any pattern to treating an inhalant allergen would be a daytime powders, and then I’d give some Homoeopathic remedies in drop at night – drop form for night – so they could take it just before going to bed. And, if they wake with that allergy style cough they could take the Homoeopathic remedies throughout the night as well. And then, gradually as it loosens they would need it less and less... Nat sulph seems to sort out most tight chests, which is incredibly useful, because it can sometimes even replace cortisone and inhalants. And, that’s what I put in drop form, either on its own, or with Drosera if it’s a dry cough, or Dulcamara if it’s a wet, chesty cough. But, for night-time tightness of chests, unresolved coughs, it sometimes needs support with other Homoeopathic remedies, which could vary. It could be Sticta, Ruma, Ars iod, Nat mur, whatever happens to be most relevant for that child.” (P2)

“... I prescribe Similimums as well as I go the clinical route. So, I would prescribe clinically depending on what the condition is and, you know, depends on what the condition is, and what the child needs... Generally, children respond very well especially if I see toddlers and infants. They obviously respond very well to Homoeopathic medicines because there’s no interference, as where, you know, if the patient – if the parent is breastfeeding – or they’re just taking in formula, then obviously you can clearly see whether your remedy works, or your remedy is incorrect.” (P3)

“... I do use specific remedies. So, there are times when I will give Sabadilla, or I will give Nux vom, or I will give Arundo donax, or all of those sorts of things. But, other times when I will use complexes. So, I from time to time still use the Heel Euphorbium® nasal spray. Or, I use Natura’s Mixed Allergin® plus Histaminum... But, I must admit that sort of shot gun therapy doesn’t always work. I will try and find a constitutional remedy... Otherwise, I do test for their particular allergy, and I will use cat dander in 30CH, or I will use dust (house dust) mite in a

30CH, or I will use grass in a 30CH, and I will do a process of desensitisation, where we use that dose of that remedy probably daily over a couple of months... Sometimes I use that *Natura Hay F®* or *Sinfrontal®*.” (P4)

“... I do isotherapy, and isotherapy is very, very good for any autoimmune disease. I give them 5 bottles – each one by the power of ten stronger than the one before – and they head out, and the medicine takes between 3-to-6 months to take depending on how they react (their body) because I’ve just changed their – whatever they have their – illness into an antigen.” (P5)

“... I’ve got *Mucosa Comp®* (I love *Mucosa Comp®*), I’ve got *Echinacea forte®* (the *Heel®* *Echinacea* because I like *Heel®* products). I would use some of those first and always – if I think it is an allergy – I always give the *Mixed Allergins®*, the antihistamine *Mixed Allergins®*.” (P5)

“... I will use Homoeopathic medicines (acute-related) like *Allium cepa*, *Euphrasia*, *Sambucus nigra*, *Arsenicum iodatum*, sometimes *Arsenicum album* (coz that’s also got that hypersensitivity sort of emotion as well, anxiety)... I will occasionally use the (*Natura’s* got a *Mixed Allergin®* histamine 200CH type of complex... If it is apparent that they’ve got both inhalant and food-related, and they’re living with pets... *Phosphorous* is another remedy I use quite a lot with children, coz it’s got the symptoms, but it’s also got that boundary-related, vulnerability issue... *Wyethia* I find is extremely helpful where there’s that itch at the back of the throat symptomatically, and also *Arundo donax* for that sort of repetitive sneezing.” (P6)

“... I think the Homoeopathic remedy is first... That’s kind of your constitutional picture, constitutional remedy... Depending on what the patient is – is the allergy causing just the upper respiratory tract infection, is the allergy causing problems with the tummy – then you treat accordingly. I can’t really say that I got a specific protocol for it... I use the *Mixed Allergin®* with histamine in a 200CH from *CoMed* to desensitise the kids to allergies.” (P7)

“... Homoeopathically I always add whatever’s indicated... If the remedy’s not clear I will use a combo which I make myself. But, obviously if it’s clear I’ll give the remedy. I don’t know – it depends.” (P8)

"... For immediate relief we treat – when I say clinically we treat – there and then for the symptoms that are showing up now... When the patient does follow up then we do a much more in depth – if you can call it, again – classical sort of consult, and then we treat with the Similimum." (P9)

"... I try stick with the Similimum and then I will probably support it with lower dose for specific symptoms. So, for stomach – I often get the stomach cramps from bread – Lycopodium's quite a big remedy that comes up, but I might add in lower potencies Mag phos and Cuprum for cramping, and Podophyllum if they've got a runny tummy. So, it depends on their symptoms. I try do constitutional, and then just support of lower dose, lower potency remedies. With sinusitis, often Sepia, Nux vom – it depends on the child – and then I'll add Kali bich, or Kali carb, Hydrastis – depending on what the symptoms are... I have tried Histaminum. I haven't had huge success with it. I don't know if it's patient compliance... I also find that the minute remedies start working patients lose interest and then they forget to give remedies... It's the Natura's Histaminum with Mixed Allergin®, so I haven't had much success, or obvious success from that. I might do a nasal spray like a Euphorbium®." (P10)

"... If I do objectively identify the allergen then part of my treatment would be desensitisation approach over a period of time using Homoeopathic remedies... Constitutional treatment – really important, especially in the younger children... It'll be a combination of desensitisation, constitutional, and/or anti-miasmatic treatment, which is – there'll almost always be some sort of nosode somewhere along the line – depending on the patient. And, if there isn't a clear constitution then it'll definitely be a nosode to begin with, and then a desensitisation protocol." (P11)

"... Medorrhinum from a Sycotic miasm point of view. We find it works very well when there's history of asthma; and, like, eczema; and like you know, from a young age. Lachesis for asthma, again. From a Psoric point of view, Nat mur, Pulsatilla – that's your bread and butter. Recently, we've been seeing a lot of Carcinosin because we've got a lot of patients that their parents put a lot of strain on them, a lot of pressure on them, and they're not there with them all the time. And then, the child just starts putting themselves under pressure. And then, they start developing eczemas, asthmas, sinuses – all those sort of things. So, those are the common ones that we would see. And then, there's obviously a lot of clinical remedies. But, it's – again it's – constitutional... Thuja, in certain cases, when we'd find that they've been

never well like from their vaccination days... We use our Mixed Allergins® – you know, like Natura sells a whole Mixed Allergins® things – so we do like that as a weekly dosage and that actually helps to control.” (P12)

4.3.4.2. OTHER CAM ADJUNCTS

The majority of the participants supplemented their Homoeopathic treatment with other CAM adjuncts such as herbal tinctures and herbal-based emollients, immunomodulatory gemmotherapy preparations, and nutraceutical supplements. Merely 2 participants recommended saline nasal rinses. Direct excerpts from participants to support this theme follow:

“... I also do a lot of MediHerbs®... I might advise on a certain vitamin C and black strap molasses is like the big thing for paediatrics.” (P1)

“... I do have herbs but I don’t really dispense them to allergy patients – more for infection. Older children and adults, I maybe prescribe essential oils for inhalants. For babies, saline.” (P2)

“... In particular with allergies I would highly recommend a probiotic. I would also probably highly recommend some form of good sort of kiddie-friendly omega.” (P4)

“... I do use (in acute cases I use) Ribes nigrum (the gemmotherapy) – it’s quite useful as a sort of anti-inflammatory but it also does seem to have a slightly antihistamine sort of effect... If it’s a skin-related thing I’ll do an olive oil with a herbal tonic in it – calendula, olive leaf – or sometimes aqueous cream-based cream, but I prefer actually a bit of olive oil (coz olive oil, itself, is anti-inflammatory). Oh, yes, if there is an asthmatic tendency then I use the Tibb Chest-Eeze® cough mixture.” (P6)

“... As adjuncts you can – if they are more upper respiratory that we have the problems – using things like gemmo’s (Ribes nigrum) which is an immunomodulatory, which is fantastic.” (P7)

“... I always do a combination of things as always... You have to do general gut healing and repair... Probiotics always. Glutamine, but only later on, because if you introduce glutamine early it flares the inflammatory process initially. It takes about 3 to 4 weeks for the inflammatory process to calm down on its own once you’ve removed the food... General gut herbs and things – slippery elm, and aloe, and deglycyrrhized licorice, and the combinations that have those things in... I make my own powder of combo of things – which has got some diatomaceous earth, and some charcoal, and couple of other things in to deal with any dysbiosis there, any parasites that are there, any candida that’s there.” (P8)

“... We do use phytotherapy – yeah – a little bit of it... As far as topical conditions go I do just recommend some Calendula cream and so on, just to soothe, you know – just to give some symptomatic relief – but nothing invasive to be honest.” (P9)

“... I advise patients to use saline washes like a Salex® nasal spray.” (P10)

“... I might use gemmotherapies. Things like Ribes nigrum and, you know, the common sort of gemmos for respiratory tract and sinus and mucus. Normally, if I use those, those would be initially while the desensitisation and constitutional treatment is having and taking its effect... I do use electroloids as well in children in certain cases... You need to also think about gut protocols as well. For like leaky gut, and like if for eczemas, or if they’ve had a lot of antibiotics, then you have to address dysbiosis – not only for addressing the allergies, but also the general immune response... We suspect that perhaps that has aggravated, or woken up latent allergies, or over sensitized them, then that will be part of my primary intervention.” (P11)

4.3.4.3. DIETARY

The majority of the participants recommended dietary interventions such as avoidance, or elimination, of allergic or inflammatory triggers. These primarily included (but were not limited to) dairy, wheat, gluten, eggs, and artificial food additives. Some participants recommended a moderate organic and nutritious diet at the discretion of their paediatric patients’ parents/caregivers. Direct excerpts from participants to support this theme follow:

“... I will also give them a healthy eating structure and explain to them the foods that the child cannot eat.” (P3)

“... If there’s any chance of a connection with a food, I mean, I always start with the gut... If I suspect that there may be a food intolerance it makes sense to avoid that food... I might consider doing something like an elimination diet or an exclusion diet... Just cutting out a particular food and just to see if there’s any improvement... You know, trying to figure out is there something that’s sort of perpetuating or driving this whole process, and either avoiding the food or correcting the gut health in terms of its ability to digest and process foods in general.” (P4)

“... I never, ever, ever, ever put a child on no wheat... I will never take one food away from anybody... The minute you take a certain food away the body has got to try and compensate for the food that they need, or the component of the food, or the vitamins, or whatever that food represents to their body... I have a diet sheet that’s a balanced diet. And, if they – if they (if you) eat balanced diet and not too much of anything – you eat in moderation – you shouldn’t have a problem.” (P5)

“... Children should eat more broadly and try to eat whole foods... In general a lot of the (diet) food now is pro-inflammatory... There are also (ya) colourants, and chemical preservatives, and so on, do also cause inflammatory responses... Vegetarian children sometimes eats a lot of soya – that’s another food group that I will say that they should cut out sequentially at some point to see if it has an effect.” (P6)

“... It’s very easy to say “eat right and eat clean” when we’re surrounded by ‘not-so-clean’. And, healthy food is expensive. Eating healthily, and eating nutritious food, and eating everything hormone-free is a problem. It’s easy to give, you know, parents work and you need to look at their socio-economic status.” (P7)

“... You can cut out the usual culprits (gluten, dairy, eggs comes up often) but if it’s something like banana, or vanilla, or cucumber, or whatever that you think is healthy; or you’re cutting out gluten but you’re having oats (and actually oats is the allergen), you know, there’s so many things that have come up on blood tests that you could never intuit. And, so you can

say, “well, cut out your gluten and dairy” (that’s great if they both came up), but if you’re also having a banana every day and the banana also came up you’re going to keep triggering... You have to cut the food out coz you have to stop triggering the response... You need to cut it out for a month before you know if it was actually a trigger or not coz it can take quite a long time for that.” (P8)

“... I often get parents who have 3 children and then one’s gluten-intolerant. And, it’s hard to accommodate everyone in the family, and there’s one child... I won’t even say “eliminate”. I will say “try the remedies first and if we see there’s a change” – and maybe not complete resolution – I’ll say “okay, let’s look at eliminating things”. I try and be mindful of the stressors that the parents go through as well.” (P10)

“... Obviously if there’s a food intolerance then there’s dietary interventions as well.” (P11)

“... We do elimination diet once we’ve figured out what we’re – we do it by trial and error. So, what we normally do is we tell the patient they must remove the common denominators like dairy, wheat, you know, things with yeast, and stuff like that. And, then we start saying add one every week and see. You know, give it like 2 weeks where you’re completely off everything, and then add one every week, and see what reactions that you’re getting. Does the child’s eczema flare up? Does the sinuses get worse? That’s how we can pinpoint what the child is allergic to.” (P12)

4.3.4.4. ADVICE

The majority of the participants identified a considerable connection between their paediatric patients’ diets and allergic tendencies. They advised their prenatal and postnatal patients to exclusively breastfeed (if possible) to their maximum lactation yield at the maintenance of a moderate organic and nutritious diet that excludes allergic or inflammatory triggers. In the case of a significant family history of allergies, they advised avoidance of parental and familial allergens during and after pregnancy. In the case of lactation insufficiency, they advised careful selection of feeds with consideration of the source and the ingredients of breastmilk substitutes. Direct excerpts from participants to support this theme follow:

“... For breastfeeding mothers it’s very important to eat very consciously, be aware of what you’re eating, and drink plenty of water. And, also it’s the best thing that you can do for your baby. Non-breastfeeding, of course, I believe even if the child had a first month of breastmilk, that’s excellent; but due to other causes, and if the mom wasn’t able to breastfeed, then select the feed. You know, do a lot of research before you just choose what you will feed, what formula milk you would use, because there’s a lot of stuff out there as well that has a lot of additives and chemicals in it. Expectant mothers, again, nutrition. It’s like the key. Diet is everything. Before even Homoeopathy diet is absolutely essential. So, I would advise on eating healthy, wholesome foods, staying away from chemical foods. Keep their food as naturally sourced as possible.” (P1)

“... The advice changes so much in terms of everything – how soon they should start solids, what solids they should have, whether a mother should expose herself to ingestants or not. Family history is massive. I mean, it’s huge. Family history is that mother has a history of allergies, or anyone in their family has a history of allergies, chances of it coming through are very high. So, I think it would be quite difficult to say categorically, “if you do this, your child won’t have allergies.” Or, like a lesser chance of having an allergy. I find keeping the child generally well lessens the severity of allergies and the chance of secondary infection.” (P2)

“... I definitely believe in breastfeeding because of the immune system, the antibodies, what the mother has – and this is my very important advice I give to them – I say to the mother that, “if I’m giving you a healthy eating structure you need to stick to that, reason being is that your baby is obviously going to get the allergies because you are eating the incorrect food”, and lots of parents do not know that... But, it’s very rare that I would see a pregnant lady that is going to have (that has) eczema and now her child is going to pick it up, or so on, but lots of time (family history) when you do find out that the mum will say, or the father will have, or the grandparents will have eczema in the family... The non-breastfeeding mothers what I do tell them as well is check the formula that you’re giving your child. Milk formula, coz a lot of times there is allergies that is related to the milk formula, and when we do eliminate it then you would find that it actually helps with the aggravation of the eczema.” (P3)

“... I can’t tell people cut out dairy and your child will be better for it... We’re sort of assuming that an allergy is going to be passed from mother to child in a sort of a non-genetic way in terms of acquired immunity. You know, I don’t believe that that is a thing. If allergies are

passed on I think it's a genetic thing that isn't necessarily dependent on what mom ate or that sort of thing. I do feel that – I do encourage breastfeeding. I do feel it's good for babies in development, and gut, and immunity in the greater scheme of things, but I'm not sure. And, again I'm not the paediatrician Homoeopath. I'm not convinced that breastfeeding will lower a child's chances of having allergies.” (P4)

“... The only evidence that I've come across as I recall is peanuts, I think – to avoid, you know, peanuts... My general advice would be anyway to eat broadly if possible... They should eat (the mother should be eating) broadly across the food groups and not one food group a lot, partly because I think that's the same with children. Essentially an allergy can build up simply by virtue of volume... So, overeating a particular food group, itself, can be risky and in terms of starting to cause a reaction. But, I also do generally recommend not cow's milk below 2 years old, eggs (preferably) as well, and to avoid foods that have got additives, and colourants, and – ya – chemicals, and so on (processed food) as much as possible – prior to as well at least... The general advice I give to everybody generally is try and keep food as natural as possible.” (P6)

“... I believe that you need to take into consideration both what mom's and dad's allergies are. So, if the dad is randomly allergic to peanuts then I'll recommend that mom doesn't actually eat peanuts through the pregnancy. So, even though it's got nothing to do with her – as the father's – 50% of that baby is dad as well, you know. So, it's the father's DNA that's in there... Stay away from your own personal allergens, as well as the paternal allergens through the pregnancy, as well as breastfeeding. We know that with breastfeeding kids are beginning to be so sensitive to absolutely everything... Bland, bland, bland diet – as bland as you possibly can... So, no cruciferous vegetables, no dairy, no anything that will cause any form of fermentation, coz obviously with kids a lot of it will come more in your silent refluxes, and colic, and some will be more of a problem.” (P7)

“... Breastfeeding mothers usually have children with less allergies because they're not exposed as much to allergens early on... A non-breastfeeding mother is giving a cow's milk based (usually)... I feel is the completely incorrect first food at all. It shouldn't be – I mean, most of ours – casein is the protein that comes up the most. I tell people on a daily basis to give up dairy... We are not designed to process it properly and it's definitely – and, I found it very interesting on that intolerance tests – milk proteins and egg – they come up all the time...

I find that our immune systems are far more reactive to like the essences of another species... So, advice is to stay the hell away from dairy as much as you can for as long as you can and not make it the mainstay of the child's thing, because it is going to create especially the dairy. And, so especially because the first 6 months that baby's gut is so porous, and the immune system is so active, and so reactive, and the tight junctions between the cells are open – they're continuously open. And, you have the little immune cells with their little dendrites going up and washing themselves in what's going on out there to actually take in information and produce antibodies. It's what it's for. And, so the exposure to those proteins so young, and so frequently, is definitely a major cause of setting up the allergy basis and intolerance basis that many kids suffer with. And, for me it's the dairy. Dairy starts the whole process, and then it keeps going, and then the others just begin to develop from that, because it creates that gut issue.” (P8)

“... Definitely they have to breastfeed, right – if they can, right. And, the advice to any expectant mum would be breastfeed as far as possible... I haven't sort of tried to link allergies with breastfeeding and non-breastfeeding.” (P9)

“... I think in breastfeeding moms have to be quite careful of what they're eating... But, they have got to do elimination if they (if we) suspect an allergy just as much as what you would if the child was actually having the food. Breastfeed as long as possible. If there's a history of allergies possibly treating the mom while she's pregnant.” (P10)

“... If there is a family history or parental history then I would recommend those things are avoided... Obviously I advise them to breastfeed for at least 6 months and then to start introducing solids – the right things in the right sequence – and, then moving any potential allergens related to that case right down the line.” (P11)

“... I've seen a link between mothers that breastfed their child for one month versus a mother that breastfed their child for 2 years. And, the child that was breastfed for 2 years can deal with things a lot healthier, right. Breastfeeding and allergies go hand-in-hand. I also advise parents who have children that are very, very allergic to not introduce any animal products into their diet for the first year, and it's only after the first year that I tell them to do that... If they find that they can't breastfeed and things like that we advise them to look at things like

goat's milk (because that's the closest to human's milk) or camel's milk. Difficult to get camel's milk, but it's very good for allergies and stuff. So, breastfeeding is paramount." (P12)

CHAPTER 5: DISCUSSION

5.1. INTRODUCTION

Following presents the discussion of the results as per the previous chapter. It provides a comprehensive interpretation of the research participants' personal experiences, observations, and interpretations of the research problem in question: paediatric allergies in the greater eThekweni area with regards to prevalence, aetiologies, clinical presentation, diagnostic tools, treatment, management, and prognosis.

5.2. OVERVIEW OF DISCUSSION

The structure of the discussion is in accordance with the main themes that emerged from the analysis of the data as follows:

Theme 1: Knowledge of paediatric allergies

Theme 2: Diagnosis

Theme 3: Multidisciplinary care

Theme 4: Treatment and management

The interpretation of these main themes and their sub-themes is supported by relevant literature.

5.2.1. KNOWLEDGE OF PAEDIATRIC ALLERGIES

The reported results in its entirety indicated that there was a general knowledge of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area. This was attributed by the recognition of commonly shared aetiologies, types, and clinical presentations amongst their paediatric patients who they consulted or observed in their practices. Registered Homoeopathic practitioners in South Africa share a scope of practice relatively similar to that of medical practitioners, and are recognized as primary healthcare practitioners, but are not included in allergy training (Harripershad, 2009). Despite the limited professional training of allergies that is available to them, their expertise and knowledge within

their capacity was nevertheless trusted by concerned parents or caregivers to accurately identify, diagnose, treat, and manage a suspected allergy. Furthermore, to flatten an allergic tendency so as to prevent any possibility of a subsequent allergy.

According to the majority of the participants, the most common causes of allergies and intolerances amongst their paediatric patients were from inhalant, dietary, environmental, artificial, and immunisation sources respectively. Primary airborne allergens included pollen, grass, house dust, animal dander (particularly cat, dog, and cockroach), mould, and industrial pollutants. These attributed to the onset of AR (seasonal or perennial), chronic rhinosinusitis (sinusitis), and allergy-induced asthma. The most commonly recognized respiratory allergy-type picture was that of AR, which was primarily triggered by the responsible inhalants and aggravated by dairy ingestants. This was symptomatically indicated by increased catarrh production, nasal obstruction, and a chronic non-productive (particularly nocturnal) cough. Three participants noted typical physical allergic symptoms amongst their affected paediatric patients, that of nasal creases, the allergic salute, Dennie-Morgan folds, and allergic shiners.

According to the AFSA (2020), AR is characterised by inflammation of the nasal mucosa, and is clinically indicated by sneezing, rhinorrhoea, nasal congestion, and pruritus of the nose, eyes, ears, palate, and pharynx. Other accompanying symptoms include postnasal drip and a non-productive cough (Akhouri and House, 2020). According to Manjra (2010), many affected patients present with allergic facies, which is characterised by allergic shiners, facial pallor, nasal creases, and the allergic salute. He, too, suggested that co-morbidities such as otitis media, infective sinusitis, uncontrolled asthma, allergic conjunctivitis, school difficulties, and sleep disturbances are associated with AR.

The peak pollination period in KwaZulu-Natal is noted between August and October. Despite the presentation of symptoms most often during spring, they may present during summer and autumn (Berman, 2017). Two participants noted that allergic symptoms recurred during these seasons. A study that was conducted to determine the prevalence of AR in medical students at the University of the Free State suggested that participants' symptoms were severest between August and October, as with other studies that suggested that their participants' symptoms were severest during spring (Seedat, 2018). Of these, rhinorrhoea, nasal obstruction, and repetitive sneezing were the commonest symptoms to pollen, dust, cat, and grass allergens (Seedat, 2018). Despite the peak of AR in early to mid-adulthood, it remains

one of the commonest chronic disorders amongst paediatrics, with seasonal AR more common than that of chronic rhinitis (Akhoury and House, 2020).

There are limited studies that address air pollution in relation to AR, however, some studies suggest that exposure to air pollutants poses an increased risk. In addition, that residence within close proximity to high volume vehicular traffic is associated with allergic symptoms (Shirinde et al, 2015). According to 1 of the participants, the Bluff area is noted as the epicentre for industrial pollution in the greater eThekweni area. As suggested by Naidoo et al (2013) south Durban is noted as one of the highest industrially polluted areas in South Africa, with high levels of air pollution reported to precipitate asthmatic symptoms. A study that was conducted amongst scholars in Durban, South Africa involved SPTs as one of the methods to examine relationships between air pollution and respiratory effects. A positive test to any of the tested antigens – which included multiple animal dander (cat, dog, mouse, rat, and cockroach), mixed dust mite, and mixed mould – presented as a wheal ≥ 2 mm than that of the negative control (saline). A positive reaction to any of the tested antigens that was greater than that of one to the positive control (histamine) indicated atopy. The results suggested the highest prevalence of sensitisation to house-dust mite and cockroach allergens in 2 schools, each north (non-industrialised) and south (highly industrialised) of Durban. Besides hay fever, 71.1% of scholars had atopy. The prevalence of symptoms measured 32.1% with some degree of asthma, 12.0% with persistent asthma, and 7.8% with marked airway hyper-reactivity. The study concluded that children resident in industrially-exposed areas were at increased risk of respiratory effects than those resident in non-exposed areas (Naidoo et al, 2013).

As discussed earlier, the progression of allergic disease from one organ system to another is interrelated with age – as food allergies are outgrown in early life, respiratory allergies may develop and persist later on (Wickman, 2005). As the atopic march suggests the progression of AD to asthma to AR, in contrast is the relationship between food allergies and AR that is to be further studied. However, limited studies do suggest that food allergies pose an increased risk to the development of respiratory allergies, despite based on self-reported data (Al-Abri et al, 2018). A study in Sweden reported that 40% of children developed AR by age 8 preceded by food allergies during infancy. Another study reported that 35% of children with food allergies later developed AR due to peanut, milk, and eggs. According to a study of French schoolchildren, it suggested a positive relation between food allergies (both self-reported and

tested) and food sensitisation, and AR. Despite the credibility of the allergic march theory, further studies are required to understand this relation (Al-Abri et al, 2018).

According to the majority of the participants, the most common ingestants that aggravated existent and latent respiratory symptoms, or caused an adverse digestive reaction, primarily included dairy (cow's milk), wheat, hen's egg, and peanut. If not a respiratory response, a gut response was initiated post consumption of any of the abovementioned, which included loose stools, abdominal bloating, abdominal pain, and constipation. One participant noted acute gastroenteritis consequent to dairy intolerance; and lethargy, fatigue, and weight gain as concomitants to general digestive complaints. The interval between consumption and symptoms was unidentified, however, one participant noted the onset of nasal congestion and a cough between 4 to 8 hours following dairy consumption. Another participant noted digestive complaints in the mornings following dairy-containing breakfast (e.g. cereal). A study that was conducted to determine FA related knowledge and practices of dieticians and medical doctors in South Africa reported that the majority of them recognized cow's milk, peanut, and eggs most responsible for adverse food-induced reactions and food allergies in children (Stear, 2011).

There is anecdotal evidence to suggest the misinterpretation between lactose intolerance and cow's milk allergy amongst patients and practitioners, which results in misdiagnosis and unwarranted dietary interventions (Walsh et al, 2016). The symptoms of lactose intolerance – which include abdominal bloating, abdominal pain, flatulence, and diarrhoea – overlap those of cow's milk allergy, and may be incorrectly termed as symptoms of a 'dairy allergy'. While lactose intolerance is a non-immune-mediated adverse food reaction, cow's milk allergy remains one of the commonest immune-mediated adverse food reactions, particularly during infancy. Non-IgE-mediated reactions occur between 2 and 48 hours following food ingestion, while IgE-mediated occur within 2 hours. Therefore, improved clinical knowledge may prevent diagnostic and management ambiguity (Di Costanzo and Berni Canani, 2018).

There is a significant difference in the clinical presentation of lactose intolerance between infants and older children, as infants tend to present with diarrhoea when they fail to absorb lactose. In contrast, older children present with typical gastrointestinal symptoms (Heine et al, 2017). A study that was conducted amongst 3 to 15 year old Indonesian children to investigate the prevalence of lactose malabsorption suggested that abdominal pain,

abdominal bloating, nausea, flatulence, and diarrhoea were the most significant symptoms of lactose intolerance that 12-to-14 year old children presented with respectively (Hegar, 2015). Another study suggested that head pain, vertigo, memory impairment, and lethargy, were concomitant extraintestinal symptoms that 20% of subjects with carbohydrate intolerance experienced. However, uncertainty remains if the ingestion of lactose, or the presence of functional gastrointestinal disorders, is the direct cause of these atypical symptoms (Di Costanzo and Berni Canani, 2018).

Representative data on the epidemic of FA in many developing countries, including South Africa, is minimal. It was until 2 significant FA prevalence studies – “FA prevalence in South African children with AD” (Gray, 2017) and “FA prevalence in an unselected population of 1–3-year-old children in South Africa” (Gray, 2017) – that were conducted in the South African setting within the past 5 years that indicated an increase in FA prevalence in selected and unselected South African populations, attributing to the emerging epidemic of FA that the country currently faces. Gray (2017) investigated allergies to cow’s milk, hen’s egg, peanut, wheat, soy, and fish amongst 100 children from the ages of 6 months to 10 years (median age 42 months) with moderate to severe AD. It was concluded that the rate of FA was increased and equivalent to that in similar studies in developed countries, as the overall rate of sensitisation to at least 1 common food allergen was 66% and the prevalence of proven FA was 40%, most commonly to egg (25%) and peanut (24%).

Gray (2017) also investigated the prevalence of food sensitisation and challenge-proved IgE-mediated food allergies in urban and rural South African toddlers (Botha et al, 2019). SPTs to egg, peanut, cow’s milk, fish, soy, wheat, and hazelnut, were performed on a total of 1583 participants (1185 in urban Cape Town and 398 in rural Eastern Cape). Open oral food challenges were performed on those participants with SPT responses of a minimum of 1mm, and a history of intolerance to a minimum of 1 food. The results indicated a higher prevalence of FA and food sensitisation in urban children than in rural children; most commonly to raw egg white, cooked egg, peanut, cow’s milk, and fish. It was concluded that the prevalence of FA in urban areas is significantly higher than that in rural areas, and that the rate in Cape Town may be compared to that in industrialized middle-stratum countries (Botha et al, 2019).

As the allergic march suggests the progression of AD and FA in infancy, to AR and asthma in childhood, clinical evidence has indicated that 50-80% of atopic children develop asthma and

AR. The prevalence of asthma depends on the onset and severity of AD, and IgE sensitisation to common aeroallergens, especially house-dust mite. An early IgE sensitisation to egg is the most significant infantile atopy indicator, as 90% of children with AD and egg allergy develop respiratory allergies. It is significant to note the link between FA and eczema, as their influence on their coexistence is interchangeable – whilst foods may trigger atopy, unnecessary elimination of foods that is based on misdiagnosis may result in compromised nutrition and psychosomatic distress (Gray, 2014).

The clinical presentation of eczema is attributed by compromised integrity of the skin barrier, and complex cellular interplay in the skin immune system (Gray, 2014). Less than half of the participants described cutaneous HRs amongst their paediatric patients as rashes, urticaria, and AD (eczemas, or eczema-like eruptions). As with respiratory and digestive reactions, the described triggers or aggravators of dermatological reactions were no different. These were, too, described by Gray (2014) as inhalant, dietary, and artificial allergens; particularly classic food proteins. Those in hen's egg, cow's milk, peanut, wheat, and soy were the most common causes of food allergies in paediatrics with AD, with egg as the commonest culprit of food-induced eczematous symptoms (Gray, 2014). According to Gray (2014), pruritus, rashes, and urticaria accounted for 75-94% of positive food reactions in these cases. In a study that evaluated the influence of AD on cow's milk allergy in children, it concluded that AD was a comorbidity amongst 71% of allergic children who manifested mainly cutaneous reactions, were sensitised to multiple foods, and indicated IgE levels for cow's milk, casein, wheat, peanut, and cat dander, higher than those in children without AD. The study, which evaluated 100 children of ages 1-24 months at the first visit until 5.28 years at the follow-up visit, concluded that impaired barrier integrity predisposed allergic sensitivity; in contrast to tolerance of cow's milk, which 61% of children developed by 5 years (Giannetti et al, 2019).

The suspicion of the development of an allergy or intolerance to additives is often by parents or families (Lemoine et al, 2020). According to 3 participants, adverse reactions were caused or exacerbated by artificial food additives such as chemicals, colourants, or any substance that subjected food to a process that modified it from its natural form. A recent study that was conducted amongst a paediatric cohort with a suspected food additive allergy suggested that 97.8% of oral food challenges to food dyes and sodium benzoate were negative. Despite the results, supposed food additive allergic reactions were reported by 4 families out of 14, and complete avoidance of the food additive was ensued as a precaution by 6 families out of 15.

In conclusion, the study suggested that food additive allergies and intolerances remain uncommon and low risk, of which healthcare professionals and parents should remain aware (Lemoine et al, 2020). To eliminate other possible causes is significant in the diagnostic process – a double-blind placebo controlled oral food challenge subsequent to an elimination diet is considered the gold standard of diagnosis (Andreozzi et al, 2019).

To a less degree was immunisation a concern for cause of allergies amongst all, but 3, of the participants. Vaccination (or the excess thereof) was an indirect cause or trigger of allergies and allergic symptoms amongst their paediatric patients. Those that were described by the 3 participants were of a mild systemic nature such as AR-type symptoms, loose stools, abdominal bloating, abdominal pain, constipation, colic, emesis, rashes, urticaria, eczemas or eczema-like eruptions, pyrexia, and asthma. The association between vaccinations and adverse (or hypersensitivity) reactions is not uncommon due to vaccine components, be those of the vaccine, itself, or additives (McNeil and DeStefano, 2019). Although life-threatening, anaphylactic or cutaneous adverse reactions are rare. According to former studies, vaccinations are not ordinarily advocated by Homoeopathic practitioners as they are by Allopathic practitioners, nor have many studies explored their rationale (Rohith, 2014). However, a study by Rohith (2014) suggested significant evidence of post-vaccination adverse reactions that were presented by paediatric patients in Homoeopathic practices, particularly those of the BCG vaccine. Included were infection of the injection site, irritability, and widespread rash and eczema – which typically followed post-administration. Another noted consequence was corticosteroid-induced asthma that followed treatment of vaccine-induced eczema. A typical scenario that was presented in clinical environments was a healthy paediatric patient who returned ill 3 to 5 days post-vaccination, and required treatment (Rohith, 2014).

It was stated by a participant that egg protein is one of the vaccine components, as vaccines are cultured in chicken eggs. In response to administration thereof, antibodies are immediately produced. According to McNeil and DeStefano (2019), it is those patients with substantial IgE antibody levels who tend to react due to residual egg protein (ovalbumin) from manufacture of certain common vaccines. Since egg allergy is one of the commonest paediatric allergies, it may attribute to vaccine-induced HRs (McNeil and DeStefano, 2019). Reported cases of anaphylactic reactions to booster DTaP and Tdap vaccines that contain minute quantities of cow's milk protein (bovine casein) are rare, nonetheless possible.

Therefore, it is advised to administer booster doses with caution to children with cow's milk allergy (McNeil and DeStefano, 2019).

Despite the sparsity of studies that elucidate the mechanism of IgE and non-IgE vaccine-induced allergies or allergic symptoms (McNeil and DeStefano, 2019), the concept of 'post-vaccination syndrome' (PVS) that was postulated by Homoeopath, Dr Tinus Smits, describes the manifestation of adverse reactions to vaccinations, in that: the vaccine in question is the direct cause of any symptom that manifests post-vaccination and withdraws post-treatment with the Homoeopathically potentised vaccine. Of the 2 syndromes in which PVS is divided, asthma, eczema, allergies, diarrhoea, and constipation are included in the chronic syndrome; while severer systemic symptoms constitute the acute syndrome. It is significant to the diagnostic process to disregard the time-lapse between the administration of the vaccine and the manifestation of symptoms, as chronic symptoms typically surface 1 to 2 weeks subsequently (Smits, 2020).

5.2.2. DIAGNOSIS

It is of paramount importance and consideration for paediatric patients to be accurately diagnosed when allergic symptoms are in question, as it avoids subjection to unnecessary avoidance of allergens that is based on misdiagnosis. The application of practical guidelines to diagnosis within a South African context is useful to healthcare practitioners in the treatment and management of allergies and intolerances (Pentz, 2014). Similar diagnostic methods were common amongst the majority of the participants, which included – but were not limited to – case taking and specific blood tests.

The clinical presentation, or symptomatic picture, of allergic and intolerant paediatric patients relied on a Homoeopathic case taking from them or their parent/caregiver, and a physical examination. The majority of the participants centred their questions to allergy-related complaints according to onset of symptoms (e.g. seasonality), concomitant symptoms (e.g. fever, anorexia, etc.), family history, and physical presentation of symptoms. A study of the management of food allergies in South African children reported that 53% of General Practitioners considered diet history, in contrast to Dietitians that 43% of whom considered

patient history, as diagnostic methods. It were only Medical Specialists who used both patient and diet history, alongside SPTs, food-specific IgE tests, and oral food challenges, to conclude a diagnosis (Stear, 2011).

The essence of a diagnosis relies primarily on a comprehensive history, than on diagnostic tests, which are useful to confirm a patient's history. It ought to include details of the reaction such as the onset of symptoms and the nature of substances implicated. Tests confirm clinical history, as they merely indicate sensitisation or non-specific cross-reactivity; therefore it is significant to interpret any positive test result in the context of the clinical history (Spickett and Van Rooyen, 2020). The majority of the participants deemed the efficacy of specific blood tests only when necessary in order to minimize the least possible trauma to paediatric patients and financial expense on parents or caregivers. Of these included ImmunoCAP® assays (RAST and Phadiatop), and ELISA tests (ImuPro® and CAST). SPTs remain the gold standard of allergy testing, however, RASTs may be alternatively performed when SPTs are unable to. Such specific tests are not cost-effective and ought to be restricted to the allergens in question (Spickett and Van Rooyen, 2020).

A recent study that reviewed allergy testing data with respect to current national testing protocols, suggested that collected data on SPTs and Phadiatop tests indicated appropriate use thereof for the diagnosis of inhalant allergies. Further testing to identify the causative inhalant allergen was performed on 45% of patients with positive Phadiatop tests – a recommendation by the ALLSA. With regards to dietary allergens 25% of patients indicated co-sensitisation to wheat, soy, and peanut, which suggested food-pollen cross-reactivity, as opposed to primary food allergen sensitisation. It was recommended that testing for relevant patients be performed due to social, nutritional, and financial implications of unnecessary elimination diets. Such recommendations advocate the use of allergy testing that is the most appropriate and cost-effective for symptomatic patients in SA (Van Rooyen et al, 2020).

Two participants stated that they test IgG reactions via Imupro®. According to 1 of the participants, its validity remains questionable, despite its value amongst her patients. Only symptoms that are severe enough warrant its use due to its cost factor. Such testing is not supported by many allergy associations, possibly due to false positive test results via cross-reactivity of antigens. Nevertheless, emerging literature supports that IgG testing is valuable as a guide for elimination diets in the improvement of symptoms (WellPro, 2020).

One participant stated that she primarily relies on Vega testing. According to the AFSA (2020), complementary allergy tests (e.g. Vega) are not evidenced in the diagnosis of FA. It is an expensive approach to receive inaccurate results that unnecessarily impacts patients' nutrition (AFSA, 2020). The substitution of IgE testing with Vega testing by some practitioners poses a risk to truly allergic patients following the reintroduction of allergenic foods. Despite the lack of evidence for food sensitivities, 2 comparative studies suggested its efficacy for inhalant allergens, with that of conventional tests. The first study double-blindly tested 30 subjects via electrodermal testing – 15 with positive SPTs for dust mite or cat dander, and 15 with negative SPTs. Approximately 25% of all electrodermal testing samples of dust mite, cat dander, and distilled water tested 'positive', regardless of the sample and the subjects' SPT results. It was concluded that electrodermal testing failed to differentiate between atopic and non-atopic subjects (Kelso, 2018). The second double-blind study involved 72 allergic and/or asthmatic subjects with positive SPTs and allergen-specific IgE tests for airborne allergens, and 28 non-allergic subjects with negative SPTs and allergen-specific IgE tests. Both groups were tested with samples of histamine, allergens, or saline, via electrodermal testing. It was indicated that no relationship existed between skin conductivity and the test samples, and was, therefore, concluded that reliable data ought to be referred to by those who consider the efficacy of electrodermal apparatuses (Kelso, 2018).

5.2.3. MULTIDISCIPLINARY CARE

Homoeopathic practitioners are capacitated to refer their patients to other healthcare professionals, and to treat concurrently with other modes of non-Homoeopathic treatment, primarily allopathic treatment. Unless otherwise necessary, the majority of the participants continued their individual treatment regardless of other interventions.

The majority of the participants reserved their need to refer to other healthcare professionals unless in the event of emergencies, such as acute or fatal conditions, and unsuccessful results from Homoeopathic treatment. The most common choices of referred healthcare professionals were paediatricians and otolaryngologists (ear-nose-throat specialists). Other referrals included paediatric specialists, of which one participant referred to a paediatric dietician, and another participant referred to a paediatric rheumatologist, a paediatric neurologist, and a paediatric haematologist. A local study that described the knowledge,

attitude and practices of South African healthcare professionals towards CAM use for atopic eczema (Thandar et al, 2017), reported that general practitioners and pharmacists were more supportive of CAM in terms of recommendations and referrals, than dermatologists and paediatricians. Nevertheless, the majority of the study population agreed that their syllabus ought to include CAM training in order to improve their patient management. Another study that explored 2 groups of parents' attitudes towards communication of conventional physicians and CAM practitioners with regards to their child's health (Ben-Arye et al, 2011), indicated that a written referral between both healthcare professionals was significantly supported by both study groups. Those parents who visited conventional clinics supported the integration of CAM within a paediatric primary care facility, and recognized the impact of mutual communication on their child's health.

The majority of the participants stated that they treat concurrently with allopathic treatment until such that their patients are weaned off it. Provided that it did not subject them to any adverse side effects, their patients continued on any other treatment when introduced to Homoeopathic treatment. Unless participants deemed it permissible to withdraw any other treatment that was non-prescribed, suppressive, or that would not subject their patients to any consequence should it be withdrawn, some participants immediately withdrew that treatment and introduced Homoeopathic treatment. According to Stear's study (2011), significant proportions of the study population (general practitioners, medical specialists, and dieticians) indicated that their patients sought CAM interventions for their allergic conditions prior to conventional medications, or utilised them concurrently. Of these included Homoeopathic treatment. A recent study that determined the use and perceptions of CAM by atopic individuals in the Pretoria East area of South Africa (Woest, 2018), indicated that Homoeopathy was the second commonest modality used in the treatment of their atopic conditions. Concurrent interventions with those of CAM included conventional antihistamines (e.g. Allergex® and Deselex®) and corticosteroids (e.g. inhaler, prednisone, and topical cortisone). However, more than half of the participants agreed that CAM preparations were as effective, mild, and safe, as conventional medications (Woest, 2018).

5.2.4. TREATMENT AND MANAGEMENT

The treatment and management protocol that the majority of the participants followed included Homoeopathic medicines, other CAM adjuncts, and dietary interventions and advice (particularly to breastfeeding, non-breastfeeding, and expectant adult patients). Homoeopathic medicines included prescribed constitutional, similimum, clinical, and desensitisation remedies, and proprietary products. Other CAM adjuncts included phytotherapy, gemmotherapy, and nutraceuticals. Dietary interventions included avoidance or elimination of allergic or inflammatory triggers (such as specific foods and artificial food additives), and moderate consumption of organic, nutritious food. Advice to mothers included exclusive breastfeeding (if possible) to their maximum lactation yield at the maintenance of a moderate organic and nutritious diet that excludes allergic or inflammatory triggers. In the case of lactation insufficiency, advice to mothers included careful selection of feeds with consideration of the source and the ingredients of breastmilk substitutes.

The first line of treatment for paediatric allergies and intolerances amongst all of the participants was Homoeopathic treatment, primarily constitutional remedies that were based on the individuality of their patient's case history and clinical presentation. Additionally, similimums and clinical remedies were prescribed when acutely indicated, and specific allergens (e.g. cat dander, house-dust mite, and grass) in Homoeopathically potentised remedies were administered when desensitisation was necessary. These included, but were not limited to, *Allium cepa*; *Arsenicum album*; *Arsenicum iodatum*; *Arundo donax*; *Carcinosinum*; *Cuprum metallicum*; *Drosera rotundifolia*; *Euphrasia officinalis*; *Hydrastis canadensis*; *Kalium bichromicum*; *Kalium carbonicum*; *Lycopodium clavatum*; *Magnesium phosphoricum*; *Medorrhinum*; *Natrium muriaticum*; *Natrium sulphuricum*; *Nux vomica*; *Phosphorus*; *Podophyllum*; *Pulsatilla pratensis*; *Rumex crispus*; *Sabadilla*; *Sambucus nigra*; *Sepia officinalis*; *Solanum dulcamara*; *Sticta pulmonaria*; *Thuja occidentalis*; *Tuberculinum*; and *Wyethia helenoides*. Indicated proprietary products were prescribed when necessary, with Natura Mixed Allergin® and *Histaminum hydrochloricum* 200CH complex as the most common amongst half of the participants. Others included Heel Euphorbium compositum® nasal spray, Natura Hay F®, and Natura Sinfrontal®.

Moderate surveys amongst children with allergic conditions indicated positive outcomes and improvement in their quality of life with the use of Homoeopathic treatment. Prophylactic hay

fever remedies included *Arsenicum album*, *Nux vomica*, *Pulsatilla pratensis*, *Gelsemium sempervirens*, *Sarsaparilla*, *Silicea terra*, and *Natrum muriaticum*. Asthma remedies included *Arsenicum iodatum*, *Lachesis muta*, *Calcarea arsenicosa*, *Carbo vegetabilis*, and *Silicea terra*. Eczema and urticaria remedies included *Mezereum*, *Lycopodium clavatum*, *Sepia officinalis*, *Arsenicum iodatum*, *Calcarea carbonica*, and *Psorinum*. Van Wassenhoven (2013) concluded that the selection of the Homoeopathic remedy depends on other presenting symptoms and 'constitutional' features. This is confirmed by a recent case report, in that Homoeopathic remedies are successful in the treatment of AD provided that they are selected as per the totality of the patient's symptoms (Bagdi and Choudhary, 2020).

An international study reported that 75.8% of atopic children with asthma, rhinitis, and dermatitis significantly improved following the use of Homoeopathic treatment. Furthermore, 70.1% of children were in complete remission of atopic symptoms following a 5 to 10 year re-evaluation, and 40% of those with more than one atopic condition at the first consultation were completely cured. Those results are evident of the successful therapeutic effect of Homoeopathic treatment in atopic children (Rossi et al, 2016).

Naidoo and Pellow (2013b) investigated the use of Homoeopathically potentised cat saliva and histamine dihydrochloride (*Histaminum hydrochloricum*) 9CH in cat dander allergy. They concluded negative SPTs and desensitisation to cat dander following the use of the above Homoeopathic complex.

The majority of the participants supplemented their Homoeopathic treatment with other CAM adjuncts such as herbal tinctures and herbal-based emollients, immunomodulatory gemmotherapy preparations, and nutraceutical supplements. Common amongst 5 participants were herbals such as *Aloe barbadensis* (aloe vera), *Calendula officinalis* (marigold), *Glycyrrhiza glabra* (deglycyrrhized licorice), and *Olea europaea* (olive) – 2 of whom stated that they prescribe proprietary herbal and Unani-Tibb products such as MediHerb® and Tibb Chest-Eeze® Syrup respectively. All 3 participants who utilised gemmotherapy, did so with *Ribes nigrum* (black currant), which – according to a review on gemmotherapy for the treatment of allergies (DiPasquale, 2019) – modulates and decreases inflammation via its mode of action similar to that of cortisone. It desensitises, decreases the severity of symptoms, and ameliorates the allergic terrain, when consumed over 3 months. In terms of nutraceutical supplements, 3 participants prescribed probiotics – 1 of whom included

glutamine, diatomaceous earth, and charcoal in her gut protocol. Merely 2 participants recommended saline nasal rinses. According to the participants in Woest's study (2018) who consulted with a CAM practitioner (majority of whom consulted with a Homoeopath), they were significantly satisfied with their outcome, and utilised CAMs for atopic conditions due to professional recommendation – of which herbals, probiotics and proprietary Homoeopathic complexes were the most commonly listed by participants (Woest, 2018). Despite preclinical data on their therapeutic ability for various health conditions, natural supplements and probiotics require further clinical trials to establish their efficacy and safety for the treatment of allergic diseases. Unless proven effective, they both can be implemented in combination or individually (Pratap et al, 2020).

The majority of the participants recommended dietary interventions such as avoidance, or elimination, of allergic or inflammatory triggers. These primarily included (but were not limited to) dairy, wheat, gluten, hen's egg, and artificial food additives. Some participants recommended a moderate organic and nutritious diet at the discretion of their paediatric patients' parents/caregivers. According to the health practitioners in Stear's study (2011), they advised avoidance of cow's milk, egg, peanut, soy, fish, wheat, and shellfish, in high-risk infants, pregnant, and lactating mothers during the first to third year of life – irrespective of the presence of an allergic disease. They advocated this dietary intervention despite the lack of clinical evidence in support of their practice. Their recommendations were on par with those of the American Academy of Paediatrics (2000), which thereafter updated in 2008 that insufficient evidence supported the delayed introduction of potential allergenic foods. Current consensus recommends the introduction of common allergenic foods during the first year of life, with consideration to severely allergic infants for whom a medical assessment is advised prior to food introduction (D'Auria et al, 2020).

The majority of the participants identified a considerable connection between their paediatric patients' diets and allergic tendencies. They advised their prenatal and postnatal patients to exclusively breastfeed (if possible) to their maximum lactation yield at the maintenance of a moderate organic and nutritious diet that excludes allergic or inflammatory triggers. In the case of a significant family history of allergies, they advised avoidance of parental and familial allergens during and after pregnancy. In the case of lactation insufficiency, they advised careful selection of feeds with consideration of the source and the ingredients of human breastmilk substitutes. According to a review on the role of milk feeds and other dietary

supplements in the prevention of allergic disease (Vandenplas et al, 2020), exclusive breastfeeding for the first 6 months of life is the optimal selection of infant feed that healthcare practitioners ought to promote. Despite the health benefits of breastmilk, limited evidence exists to advocate its preventative effect against the development of allergic disease (Vandenplas et al, 2020), as with the presence of food proteins in breastmilk, itself (Rajani et al, 2020). Furthermore, whether the detected amounts thereof are sufficient to play a biological role and elicit a reaction remains unknown (Rajani et al, 2020). The development of allergen detection assays will aid in the surveillance of food antigen levels to determine if they are sufficient to warrant maternal elimination diets, and to characterise their nature of transmission to breastmilk. In terms of diet variety during pregnancy and lactation, its effects on the development of allergic disease are yet to be further investigated, as current results merely indicate reduced infantile and childhood respiratory allergy outcomes (D'Auria et al, 2020).

In the case of lactation insufficiency, review experts recommend cow's milk-based infant formulas, provided that they meet stringent and regulated nutritional and safety requirements. While not yet indicated unsafe, partially hydrolysed formulas have scientifically suggested potential benefit in the prevention of AD in high-risk infants, however, evidence with regards to their routine recommendation for primary allergy prevention lacks. Nevertheless, they emphasise that human breastmilk remains the prime source of infant nutrition (Vandenplas et al, 2020).

CHAPTER 6: CONCLUSION

6.1. CONCLUSION

The perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area were of significance in understanding and improving the current knowledge of these from a Homoeopathic perspective. Furthermore, the study provided reliable data in support of the prescription and usage of Homoeopathic treatment. The study expanded the literature of paediatric allergies and the management thereof from a Homoeopathic perspective for the benefit of the researcher, Homoeopathic bodies, parents and caregivers, and the general public. The results of this qualitative study provided new insights into the Homoeopathic understanding, treatment approaches, and management of allergies in children.

The study, which involved 12 registered Homoeopathic practitioners in the greater eThekweni area, investigated their perspectives of paediatric allergies in terms of the aetiologies, clinical presentation, diagnostic approaches, and treatment and management protocols as in practice. They agreed that pollen, grass, house dust, animal dander, mould, industrial pollutants, dairy (cow's milk), wheat, hen's egg, peanut, artificial food additives, and immunisations, most commonly caused AR, sinusitis, allergy-induced asthma, adverse digestive reactions, rashes, urticaria, and AD, amongst their paediatric patients. How they diagnosed allergies or intolerances were primarily via Homoeopathic case takings, and referred their patients for specific blood tests only when necessary to avoid trauma to their patients and financial expense on parents or caregivers. However, with their reservation to readily refer for blood tests was the risk of a misdiagnosis or the unnecessary elimination of foods that was not diagnostically warranted. Some practitioners remained neutral in their approach to multidisciplinary care, as in referrals to conventional medical practitioners and concurrent treatment regimens when necessary. Unless they believed that the withdrawal of any non-prescribed or suppressive conventional medication would not subject their patients to any consequence, some practitioners immediately withdrew it and introduced Homoeopathic treatment. This remained in line with the medicolegal aspect of Homoeopathic practitioners' scope of practice as highlighted by one participant, who disapproved the withdrawal of medication not prescribed by them. The first line of treatment was Homoeopathically prescribed constitutional, similimum, clinical, and/or desensitisation remedies, and proprietary

complexes, supplemented with phytotherapeutic, gemmo, or nutraceutical adjuncts. Practitioners advocated elimination diets and diet variety during pregnancy, lactation, infancy, and childhood, as they identified a considerable connection between their patients' diets and allergic tendencies.

Despite the commonality of treatment amongst the majority of the participants, they each followed an individual approach to allergic cases. If not constitutional remedies, similimums or clinical remedies were prescribed, followed by desensitisation remedies if accurately indicated. Inclusive of constitutional remedies were those of a miasmatic nature, however, the indication of a nosode depended on the individuality and familial history of the case. At large, practitioners' prescriptions were in keeping with classical Homoeopathic principles – that a constitutional remedy was individually selected on the constellation of their patient's mental, emotional, and physical symptoms within his or her entirety, or that the selected remedy was that most similar to the symptomatology of the case. With that said, an exception was that to the law of simplex, when some practitioners prescribed multiple preparations under the relevant circumstances. Their reason to warrant their prescriptions requires further investigation. As their diagnosis of allergic conditions depended primarily on their professional knowledge, observations, and secondary information from parents or caregivers, it is unknown as to whether their selection of remedies was centred on a common range of specific paediatric remedies such as *Carcinosinum*; *Lycopodium clavatum*; *Medorrhinum*; *Natrium muriaticum*; *Phosphorus*; *Pulsatilla pratensis*; *Thuja occidentalis*; and *Tuberculinum*, or allergy-indicated remedies such as *Allium cepa*; *Arsenicum album*; *Arsenicum iodatum*; *Arundo donax*; *Cuprum metallicum*; *Drosera rotundifolia*; *Euphrasia officinalis*; *Histaminum hydrochloricum*; *Hydrastis canadensis*; *Kalium bichromicum*; *Kalium carbonicum*; *Magnesium phosphoricum*; *Natrium muriaticum*; *Natrium sulphuricum*; *Nux vomica*; *Podophyllum*; *Pulsatilla pratensis*; *Rumex crispus*; *Sabadilla*; *Sambucus nigra*; *Sepia officinalis*; *Solanum dulcamara*; *Sticta pulmonaria*; and *Wyethia helenoides*.

In light of the above, it may be concluded that Homoeopathic practitioners share mutual perceptions and general knowledge of paediatric allergies in spite of limited professional training of allergies that is available to them. Their expertise and knowledge within their capacity was nevertheless trusted by concerned parents or caregivers to accurately identify, diagnose, treat, and manage a suspected allergy as per their patient's totality of symptoms. Furthermore, to flatten an allergic tendency with indicated Homoeopathic treatment and

appropriate adjuncts so as to prevent any possibility of a subsequent allergy. However, practitioners ought to consider the possible impact of elimination diets on their patients and families, as nutritional deficiencies, malnutrition, emotional stress, and financial expense are all causes of concern. Further clinical evidence is required to advocate them, for which practitioners may consider in their diagnostic, treatment, and management protocol. While Homoeopathy was not the primary option of treatment for their patients' allergic conditions and concerns, it nevertheless remains a successful modality of CAM for the treatment thereof.

6.2. LIMITATIONS

The study and the results thereof were challenged due to the following limitations:

- An interview time frame of 30 minutes was adhered to due to patient consultation hours.
- A study size of the minimum of 12 participants was obtained shortly prior to a 21 day Nationwide Lockdown due to the containment of COVID-19 in South Africa, during which movement of persons and goods was restricted for essential purposes only.
- A total of 53 qualified Homoeopaths were contacted, however, 17 eligible participants agreed to participate, and 12 were interviewed until data saturation was achieved. A small sample size was obtained, therefore results cannot be generalised to the entire profession.
- The geographical area of the study was restricted to eThekweni due to the nature of the study.
- The method of non-probability purposive sampling accommodated practitioners who were willing to participate, within convenient access, and subject to availability. The first 12 eligible participants were consciously selected on the basis of the above.
- The questioning technique provided for open-ended responses, however, less emphasis was placed on the question of paediatric Homoeopathic treatment and management approaches such as follow-up consultations.
- The extraction and interpretation process of data was perceptually challenging due to audio distortion of some practitioners' responses.

6.3. RECOMMENDATIONS

Based on the challenges and outcomes of the study, the following recommendations ought to be considered for further similar studies, or a future repeat study:

- Utilize an online platform to obtain a larger sample size and accommodate participants to respond at their own convenience.
- Conduct online interviews with participants who are not within close proximity, or easily accessible, to investigate their approaches and practises in comparison to those who were personally interviewed.
- Utilize a broader geographical area such as provincial or national, to include more registered Homoeopathic practitioners.
- Employ a quantitative research method to accurately capture and quantify data such as the prevalence of paediatric allergies in practice, and the success rate of Homoeopathy for the treatment thereof.
- Employ varied research methods (i.e. quantitative and qualitative) to achieve the best possible results.
- Question practitioners' paediatric prescription techniques, and their option or preference of complexes and/or adjuncts in treatment approaches and protocols, as opposed to the sole prescription of Homoeopathic simplexes.
- Question the management of paediatric allergies and intolerances in terms of parental advice and education post diagnosis, and follow-up consultations.
- Introduce or integrate into the South African Homoeopathy curriculum a module that focuses on allergies and the diagnostic approach thereof. As mentioned by a participant that "*no papers have been written*" on the correlation between increasing paediatric cases and intolerances due to the introduction of proteins to the human body, it remains a hypothesised issue amongst Homoeopathic practitioners.
- Develop and apply a specific Homoeopathic framework or guideline to paediatric allergy cases in terms of case taking, diagnosis, treatment, and management. Despite the individuality and Homoeopathic constitution of each paediatric case, a similar approach was followed by the majority of practitioners in the diagnosis and treatment thereof. By far, a comprehensive Homoeopathic case taking is the most integral and reliable component in the diagnostic process of paediatric allergy cases, however,

allergies and intolerances arise from an umbrella of common aetiologies and contributing factors; therefore a standardised diagnostic and treatment model ought to provide a sense of consistency and confidence in the Homoeopathic profession. Albeit Homoeopathic practitioners in South Africa share a scope of practice relatively similar to that of medical practitioners, it is the need to address the underlying cause of the allergy that distinguishes their approach to that of their allopathic colleagues.

- Introduce to Homoeopathic practitioners a brief postgraduate programme on paediatric allergies and the conventional approach thereof, as some expressed their difficulty in treating patients currently or previously on suppressive or overprescribed antibiotic medication.

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APPENDIX A: LETTER OF INFORMATION AND CONSENT



LETTER OF INFORMATION

Dear, Participant

Thank you kindly for your interest and time in participating in my research study. Following is a brief overview of it. Upon your understanding and consent, your voluntary participation will be confirmed.

Title of the Research Study: Perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekwin area.

Principal Investigator/s/researcher: Suvanya Pillay, M. Tech Homoeopathy

Co-Investigator/s/supervisor/s: Dr Cornelia M. Hall, M. Tech Homoeopathy

Brief Introduction and Purpose of the Study: The increase in paediatric allergies in eThekwin appeals for further investigation from a Homoeopathic perspective. No study on the Homoeopathic management of paediatric allergies in eThekwin has been conducted.

The proposed study aims to investigate the perspectives of Homoeopathic practitioners with regards to aetiologies and clinical presentation of paediatric allergies as these present in practice. Also, to investigate the diagnostic approaches, and treatment and management protocols that they followed.

In conducting such study, it will expand the literature of paediatric allergies from a Homoeopathic perspective for the benefit of the researcher, Homoeopathic bodies, parents, and the general public. Also, to support and encourage the use of Homoeopathy as the primary healthcare intervention and first line of treatment for paediatric allergies and associated conditions.

Outline of the Procedures: I will contact you to schedule a brief interview (approximately 30 minutes) with you at your practice. I will conduct and facilitate the interview in English according to an interview guide. The interview will be captured via an audio recording in order to accurately preserve your words.

Should you wish to participate, you must:

- Be a registered Homoeopathic practitioner with the Allied Health Professions Council of South Africa (AHPSCSA).
- Be in full-time or part-time practice for a minimum of 5 years.
- Have experience with paediatric patients.
- Be a resident practitioner in the greater eThekweni area.

Risks or Discomforts to the Participant: The nature of the research study does not pose any risk or discomfort to you. However, should you feel otherwise, you may withdraw from the research study.

Benefits: You will not directly benefit from the research study. However, your input will expand the literature of paediatric allergies from a Homoeopathic perspective, and support and encourage the use of Homoeopathy as the primary healthcare intervention and first line of treatment for paediatric allergies and associated conditions.

Reason/s why the Participant May Be Withdrawn from the Study: Should I believe that it is in your or my best interests, I shall withdraw you from the research study without consequence.

Remuneration: You will not receive any monetary or other forms of remuneration for your participation in the research study.

Costs of the Study: You will not be expected to finance any costs towards the research study.

Confidentiality: A specific identification number (to which I solely hold access) will be assigned to you at the onset of the research study. During the research study, all data will be password locked by me. Following completion of the research study, all computerized, audio, and hard copy data will be maintained and stored in its original form for a minimum of 5 years under lock-and-key in the Department of Homoeopathy at the Durban University to safeguard your anonymity and confidentiality. After 5 years, all computerized and audio data will be deleted securely and all hard copies will be shredded.

Research-related Injury: The nature of the research study does not anticipate or pose any risk of injury that is related to the research study. No compensation will be paid for any such claim/s.

Persons to Contact in the Event of Any Problems or Queries: Please contact the researcher, Suvanya Pillay (071 100 9700), the supervisor, Dr Cornelia M. Hall (082 921 6149 or 031 373 2483/2514 or corneh@dut.ac.za), or the Institutional Research Ethics Administrator (031 373 2375).

Complaints can be reported to the DVC: Research, Innovation and Engagement: Prof. S Moyo (031 373 2577 or moyos@dut.ac.za).

General: Participation in the research study is entirely voluntary, and you may withdraw from it at any given time. A minimum of 12 participants will be involved in the research study. Should you have any queries, please do not hesitate to contact any of the above persons.



CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Suvanya Pillay, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: **IREC 185/19**
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____	_____	_____	_____
Full Name of Participant	Date	Time	Signature/Right Thumbprint

I, Suvanya Pillay, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

_____	_____	_____
Full Name of Researcher	Date	Signature

_____	_____	_____
Full Name of Witness (If applicable)	Date	Signature

_____	_____	_____
Full Name of Legal Guardian (If applicable)	Date	Signature

APPENDIX B: CALL FOR REQUEST FOR PARTICIPATION IN RESEARCH STUDY

To whom it may concern,

I, Suvanya Pillay, am a Masters in Technology (Homoeopathy) student at the Durban University of Technology. The research study that I wish to conduct for my Masters dissertation involves the perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area.

I, hereby, call for a request to all Homoeopathic practitioners registered with the Allied Health Professions Council of South Africa to participate in my research study.

Attached herewith is a copy of my research study proposal, which includes a letter of information and consent form (Appendix A), and a letter of approval from the Institutional Research Ethics Committee (IREC).

Should you have any further queries, please do not hesitate to contact me (071 100 9700 or suvanya.p@gmail.com).

Thank you for your time and consideration in this matter.

Yours sincerely,

Suvanya Pillay (M. Tech: Hom)
Durban University of Technology

Signature

Date

APPENDIX C: REQUEST FOR PARTICIPATION IN RESEARCH STUDY

Dear, Colleague

I, Suvanya Pillay, am a Masters in Technology (Homoeopathy) student at the Durban University of Technology. The research study that I wish to conduct for my Masters dissertation involves the perceptions and management of paediatric allergies amongst registered Homoeopathic practitioners in the greater eThekweni area.

I kindly request your participation in my research study. Attached herewith is a letter of information for your perusal.

Should you be willing to participate, kindly submit the inclusion criteria as per the link below:

https://docs.google.com/forms/d/e/1FAIpQLSeM9CgsyaXlodZ4HYpJa95Yd5KnSiSoUjK-BJP7hP2VxUacA/viewform?usp=sf_link

Should you fulfil the inclusion criteria, you will be required to provide written informed consent. You will receive a hard copy of the consent form at the commencement of the interview.

Should you have any further queries, please do not hesitate to contact me (071 100 9700 or suvanya.p@gmail.com).

Thank you for your time and consideration in this matter.

Yours sincerely,

Suvanya Pillay (M. Tech: Hom)
Durban University of Technology

APPENDIX D: INTERVIEW GUIDE

- What percentage of paediatrics do you treat in practice?
- Please describe the most common main complaint from the parents of your paediatric patients.
- Please tell me about the most common causes of allergies and intolerances amongst your paediatric patients.
- Please tell me what you consider tell-tale signs or red flags of allergies and intolerances in your practice.
- Please explain how you diagnose allergies and intolerances in your practice.
- Please tell me if (and why) you refer your paediatric patients to any other health professional.
- Please explain how you treat and manage allergies and intolerances in your practice.
- Please elaborate on your advice to expectant, breastfeeding and non-breastfeeding mothers.
- Please describe your approach to conventionally treated paediatric patients for allergies and intolerances.
- Please explain your understanding of Homoeopathic miasms with regards to allergies and intolerances.