

INCIDENCE, KNOWLEDGE AND HEALTH SEEKING BEHAVIOUR FOR PERCEIVED ALLERGIES AT HOUSEHOLD LEVEL: A CASE STUDY IN ILALA DISTRICT DAR ES SALAAM TANZANIA.

M. Justin-Temu¹, P. Risha¹, O. Abila² and A. Massawe³

Abstract

Objectives: To determine incidence of perceived allergies, causes and management, of disorders associated with allergies at household level in Ilala district.

Method: A cross sectional study was conducted in Ilala district involving a total of 400 households randomly selected 8 wards out of 22 wards in the district and head of the household interviewed using a structured questionnaire.

Results: Of the household members interviewed, 66.8 % being females, about 60.0% reported to be allergic to different substances. Food 16.7%, animal dander and fur 15.4%, pollen 13.3%, %, house dust 11.7%, medicines 8.3%, cosmetics 5.8, and plants 6.3% were the most common causes of allergy within the households. Most individuals were not aware of the source of allergy. Only few (40.4%) respondents had some knowledge about allergy, and they acquired the information through different sources such as mass media, school, friends, other families etc. In terms of prevention, 39.2% knew how the allergies could be prevented, and 41.2% had knowledge on appropriate medicines for the control and treatment of different allergic symptoms. Skin allergies 35.9%, respiratory allergies 13.3%, and allergies of the eye 10.8% were observed to be the most common complaints.

Conclusion: The study shows high prevalence of perceived allergy disorders in the community associated with poor understanding on the possible causes and preventive measures. This highlights the need conduct public education to raise awareness on allergy with a focus on causes and avoidance of exposure to allergens to mitigate effects of allergy in the society.

Key words: Perceived Allergy, household, cause, management

Introduction

Allergy diseases are a common and increasing illness, affecting between 15% and 20% of the general population. They comprise a range of disorders from mild to life-threatening, and affect many organs (1, 2). It is caused by the tendency of some hypersensitive individuals to produce an exaggerated immune response to otherwise harmless environmental substances. Thus, an allergy can be defined as the clinical manifestation of this inappropriate IgE immune response (1, 3). Any substance that causes such a reaction is known as an allergen, for example, dust mites, pollen and shellfish. Usually allergens cause no health problems at all, but in allergic individuals these can cause severe symptoms, illness and in some cases death. Common allergies include allergic rhinitis, asthma, atopic dermatitis, allergic contact dermatitis, allergic pharyngitis, allergic conjunctivitis, allergic arthritis, and anaphylactic shock: a severe life threatening reaction (1).

Allergies constitute one of the most common medical ailments in the Northern America, where more than 38 million people are affected and over 20 million visit physicians yearly. In this region the most reported allergies are sinusitis, contact dermatitis, food allergies and reactions to insect stings (4). In a study done in Dar es Salaam on skin sensitivity reactions in children with Bronchial asthma, the percentages of positive skin reaction to four commonly reacting antigens were as follows: D. pteronysimus (90.9%), house dust (90.9%), cat fur (81.8%) and dog hair (69.1%) (6). The high rate to cat fur and dog hair antigen is interesting and has not been widely reported although cats and dogs are common domestic pets in households worldwide (7).

A study conducted in United Kingdom showed a significant increase in the number of people suffering from allergies. A comparison of blood samples from 513 men taken in 1990s with samples collected in the 1980s and the 1970s, showed a 4.5% increase in allergies. The reason for the increase was thought to be due to increase in exposure to specific allergens. Pollen is a big problem in temperate climates. It triggers asthma and allergies for a lot of people. Those with seasonal allergic rhinitis (hay fever) or asthma triggered during a particular season should see a doctor and enquire about preventative medication. Food allergic consumers depend on ingredient labels for allergen avoidance, and the modality of labelling is changing. Results by Estelle Simons et al 2005 (8), suggest that improved product allergen labelling will reduce allergic reactions and simplify allergy management.

Allergy is now becoming a common problem in our society but people are not aware of the causes and management. World Allergy Organization (WAO) and the World Health Organization (WHO) promote the concept of prevention of allergies for patients prone to become allergic, with a focus on preventing the worsening of existing allergic diseases and reduce their high cost to society (9, 10). Therefore the aim of this study was to find out the incidence, causes and management of perceived allergies at household level in Ilala district.

Methodology

Study area and population

The study was conducted in Ilala District which is one of the three districts of Dar es Salaam region. The district has 22 wards, of which eight wards were randomly selected for convenience due to time and financial constraints. The wards selected included Vingunguti, Kiwalani, Mchikichini, Segerea, Buguruni, Chanika, Pugu, and Jangwani. All the villages in the eight wards were included in this survey. The villages are made of several ten cell units through which 50 cell units in each wards

Correspondence to: M Justine –Temu, School of Pharmacy, Muhimbili University (MUHAS), P. O. Box 65013, Dar es Salaam, Tanzania. E-mail: mjtemu@yahoo.com

¹ School of Pharmacy, MUHAS, P. O. Box 65013, Dar es Salaam, Tanzania, ²Muhimbili National Hospital, P.O. Box 65000, Dar es Salaam, Tanzania, ³Meise Private Skin Clinic, Dar es Salaam, Tanzania

were selected by simple randomization techniques and all households within the selected fifty-cell units were included in the study. A total of 400 households, 50 from each of the eight wards were interviewed for perceived allergy.

Data collection:

The selected households were visited and face to face interview with the head of households or representative was conducted using closed ended questionnaires. Questionnaires were administered to determine the following parameters: incidence of common allergies, awareness towards the causes of allergy, preventive measures taken by households' members against different allergies, and health seeking behaviour.

Data analysis

The questionnaires were assigned code numbers before entering into the computer and data analyzed by Epi Info 6 version.

Ethical clearance:

Permission to conduct this study was obtained from relevant authorities that are district, ward, villages and ten cell leaders in the respective areas. Consent was sought from the selected community members before carrying out the interviews and interviewees' were assured of the privacy of information they provided

Results

Of the 400 households interviewed, 240 (60.0%) had at least one member who had allergy, 62.5% of them being females. Of those households' members with perceived allergy, 59.6% had no adequate knowledge about allergy. Those few households which had members aware about allergy, the majority received information from family and/or friends (62.9%). Other sources of information on allergy were mass media and schools (Fig 1). Respondent cited different causes for the perceived allergy and one of the most frequent mentioned causes was food, animal dander and fur, and house dust (Fig 2). About a quarter of house hold members with perceived allergy reacted to more than one substance/allergen. Although about 40% of those suffering from perceived allergies had more than one allergy problem, the most affected area was the skin (35.9%) and respiratory tract (13.3%) Fig. 4.

When asked on preventive measures, and health seeking behaviour, only a few (39.2%) respondents knew that the conditions could be prevented by avoiding exposure to the suspected allergen. On health seeking behaviour, majority of the household members with perceived allergies had received no treatment at all (58.8%). For those who sought treatment or symptomatic relief, most of them went to hospitals (40%) or pharmacies (17.5%), while some few consulted traditional healers or self medicated (Fig 3). The most commonly used medicines by household members to treat allergy was antihistamines, antibiotics, decongestant, corticosteroids, bronchodilator, topical applications, herbal medicines (Table1)

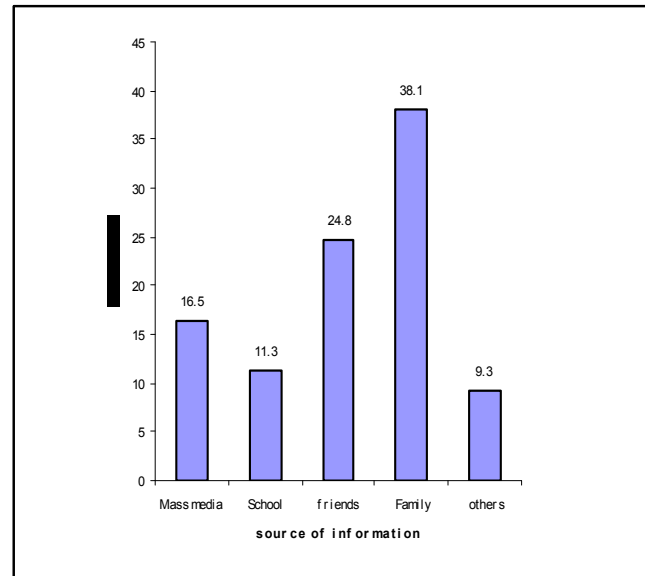


Figure 1: Different sources of information given by the household.

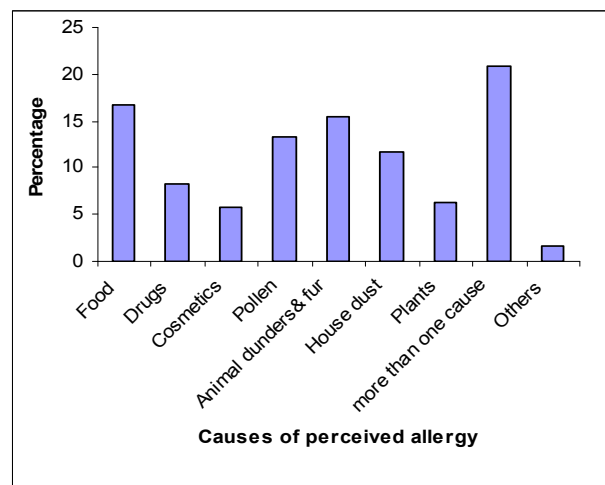


Figure2: Respondents according to the common causes of perceived allergy at household level.

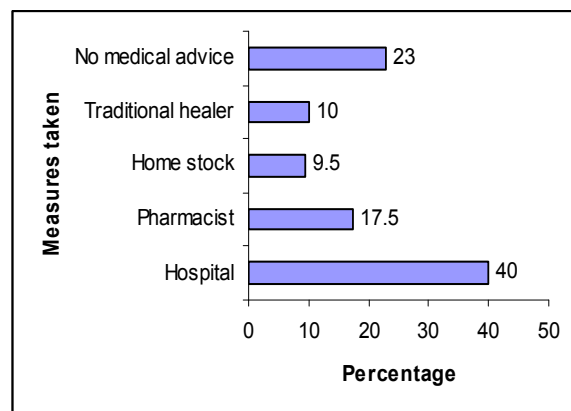


Figure 3: Measures taken when a household member experiences allergic symptoms (n=240).

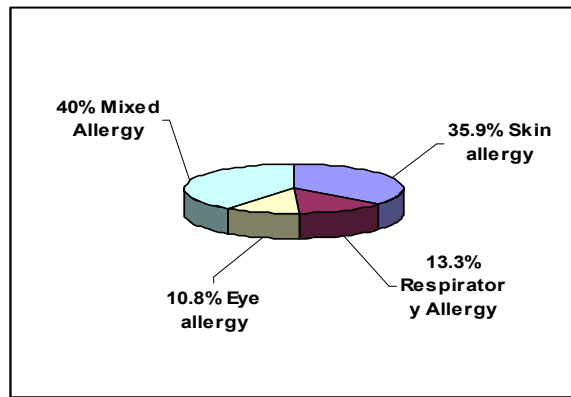


Figure 4: Common allergic disorders at household level (n=240)

Table 1: Commonly used medicines within the households for allergy.

Category of medicines	Percentage (%)	Types of medicines
Antihistamines	17.4	Piriton tab, cetirizine HCL tab, Intamine cream®
Antibiotics	6.7	Erythromycin tabs and ampicilin caps.
Decongestants	14.6	Ephedrine and codril®
Corticosteroids	35.4	Hydrocortisone injection
Bronchodilator	4.8	Salbutamol (ventolin®), Aminophilin,
Herbal medicines	3.8	Msinduzi, Mwikomwiko, Igobekho and Mvule maji
Eye allergy	10.8	primon® eye drops
Others	7.2	Medicated soaps, Calamine lotion,

Discussion

The study showed that majority of members in the households and mostly females were allergic to different types of substances. This is an indication that females are more predisposed to allergy and is in agreement with observations by Long (11) where he found 65% female, 35% male suffering from allergies. High incidence of perceived allergy among females could be due to the fact that females being the housewives are responsible for many activities including cleaning the house, preparing food, taking care of animals and gardens, handling medicines for the family and use of cosmetics, thus being more exposed to allergens. Food was found to be responsible for the major allergic conditions in households and could be attributed to the wide variety of foods eaten. A previous study by Sicherer SH (12) also reported that food allergy is most common especially in childhood and that the diagnosis of food allergy requires a careful search for possible cause and confirmation of the cause(s).

About two thirds of the individuals with perceived allergy didn't know that allergy could be avoided, or the preventive measure is was to avoid contact with the offending material. This is in line to what was found elsewhere by Morishita M. et al. (13) that appropriate elimination of the offending cause is necessary to avoid the acute allergic reaction including anaphylaxis. The fact

that a large number of the respondents did not know that allergy is preventable can be explained by the fact that lack of public education through mass media or other appropriate medial to targeting the community especially females (housewives) who stay at home most of the time and have no other means of acquiring public education. The fact that allergy is fatal and households do not know the preventive measure raises a serious concern and calls for appropriate action.

With respect to medicines used to control and treat allergy, less than half of all respondents had taken medication for symptomatic relief. Of these, some received more than one medication. The commonly mentioned medicines were either taken orally, applied or injected. Most of the medicines mentioned were those commonly used in managing allergies (1). Those who never received any medication and did not know if there were medicines for relief of allergic condition or other medicines that can control the symptoms, believed that allergy is a self limiting condition. The respondents did not also know that the medicines do not cure the underlying allergies. This is an indication that public education to the patients is an important measure to alleviate suffering for those with allergic conditions

It was further found that majority of those who sought treatment, majority reported to hospitals. The large percentage reporting to hospital is an indication of awareness of importance of medical care. Also the involvement of community pharmacists in managing the allergy condition shows that the population is aware of the role of a pharmacist in the primary health care to the community. It has been found that normally, sick people rely on one or a combination of health facilities (14).

The most common allergic disorders within the households were skin allergies and respiratory system, although some were suffering from more than one condition. Skin seems to be the most affected area. This is expected because the skin is the largest organ and it comes into contact with many substances including chemicals, clothing, plants and other allergens that may aggravate the condition, and so it is not surprising that skin is subjected to a number of allergies.

This study has shown that people often find it difficult to believe that they have become allergic to substances they have used for years. The fact is, some individuals take up to several years of repeated and prolonged exposure for weaker substances (allergens) to become sensitized. Allergy is sometimes inherited and studies have shown a significant relationship between persistent allergy in a father and atrophy in children (15). However children, who have no known family allergy history, can still develop allergies, where the environmental factors are the prime suspects in these instances (4)

Conclusion

This study revealed high incidence of perceived allergies at household level in communities and females are the most vulnerable. The causes of such conditions include most of controllable environmental factors, food constituting a considerable part of offending substances reported. Skin was found to be the most affected area. It was also found that majority of the household with

perceived perceiving allergies did not have appropriate knowledge on preventive measures or proper management. This calls for health education to the public to raise awareness about the cause, prevention and management of allergy.

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