DOI: https://doi.org/10.53555/nnmhs.v8i6.1301 Publication URL: https://nnpub.org/index.php/MHS/article/view/1301

A study on and types and symptoms of allergies in Basrah -southern Iraq

Wasfi Dhahir Abid ali* , Semahir S, Hameed[2],Mahfoud Falih Hasan[3], luay abdulwahid shihab [4]
[1] Ass. prof department of basic science – college of nursing - university of Basrah
[2]Ass, In department of basic science – college of nursing - university of Basrah
[3]Prof. department of basic science – college of nursing - university of Basrah, Email:Mahfoodh.hassan@uobasrah.edu.iq
Ass. prof department of basic science – college of nursing - university of Basrah[4,] Email: luaay.abdulwahid@uobasrah.edu.iq
*Corresponding Author: -
Email: Wasfi.abid_ali@uobasrah.edu.iq

Abstract
We analyzed the data collected from people participated our questionnaire , persons suffer from different types of allergies in Basrah government southern area in Iraq which characterized by heat humid weather at most year seasons, and the present study aimed to investigate the most common type of allergies and it's relation with the symptoms and season. The results revealed that the most dominant type of allergy was seasonal allergy and less medicines allergy with no significant variation between male and female , and there were strong relation between the type of allergy and the symptoms.

Keywords: - *allergy; Basrah; symptoms; Iraq*

Introduction

Allergies, caused by an allergic reaction to harmful substances in the environment, the most common allergens are pollen and some ingredients in foods. Metals and other materials may cause such problems. Food, insect stings (1) Medications are the main causes of severe allergic reactions (2). Allergic reactions to foods caused by cow's milk, soybeans, eggs, wheat, peanuts, tree nuts, fish, and shellfish. (3). There are differences between countries in the number of individuals within a population having allergies. Allergic diseases are more common in industrialized countries than in countries that are more traditional or agricultural, and there is a higher rate of allergic disease in urban populations versus rural populations, although these differences are becoming less defined.(4). Edward Willett stated that individuals living in too sterile an environment are not exposed to enough pathogens to keep the immune system busy. Since our bodies evolved to deal with a certain level of such pathogens, when they are not exposed to this level, the immune system will attack harmless antigens and thus normally benign microbial objects—like pollen—will trigger an immune response (5). In the case of allergic rhinitis (AR) (6 suggest that AR is a global health problem and one of the most common conditions seen by otolaryngologists. Presenting with one or more symptoms, including sneezing, itching, nasal congestion, and runny nose.The results of (7) showed that The prevalence of AR was reported to be 15%–25%. Children and adolescents ,Nasal symptoms of AR were more intense in autumn (28.85%)and the spring (51.92%). Teachers are the main caregivers and the first line of protection for school children. Their role complements that of parents. During school hours, school teachers are actually the first-respondent in cases of disasters or emergencies. They must be able to deal properly with health emergencies both in normal children, and those children with special health care needs [21] .

Material and methods

This study was across-sectional involving participants suffer from allergies ,male and female in Basra government south of Iraq to achieve the aim of the questionnaire was designed as comprised of questions in Google form include gender, many items regarding allergic types include (Drug Allergy, Food Allergy, Insect Allergy, Latex Allergy, Mold Allergy, Pet Allergy, pollen Allergy, Seasonal allergy (Hay fever rhinitis ,symptoms sneezing and an itchy, runny or blocked nose (allergic rhinitis)

itchy, red, watering eyes (conjunctivitis), wheezing, chest tightness, shortness of breath and a cough , a raised, itchy, red rash (hives), swollen lips, tongue, eyes or face and tummy pain, feeling sick, vomiting or diarrhea as well as season as well as gender. The data were analyzed using the Statistical Package for Social Sciences (SPSS), version 26. Include Percentage (%),arithmetic mean and Spearman's Correlations

Results and discussion

Allergies induced sensitivity to each organ of the body in a variable group of adjacent symptoms **(8).** Table-1 showed that there were no significant differences between male and female regarding the participated the questionnaire as well as the age , severity percentage of infection with COVID-19 (10 -30 %) was 70% while the severity (more than 60%) was 10%, On other hand the percentage of persons recovered from the infection without treatment were 45% the others recovered with treatment. In case of post recovery complication ,52% of recovered persons suffered from Fatigue, Feeling of tiredness or lack of energy and 35% lost the taste and smell while other post recovery complication were less, table-2 .Comparison of symptoms according to gender, table 3 showed that Body pain, Joints pain or headache. Hair loss, Inability to focus or difficulty thinking or a lack of mental clarity, Insomnia, anxiety disorder or depression and Dizziness or lightheaded when you stand up from sitting or lying down were significantly appear post recovery.Table -4 Comparison of symptoms (post complication of COVID-19 infection) according to Recovery with or without treatment revealed a significant relation of Body pain, Joints pain or headache, Shortness of breath or difficulty breathing and Dizziness or lightheaded when you stand up from sitting or lying down core.

young adults and Adolescents are at higher than expected risk of morbidity and mortality from both asthma and food allergy. While this is poorly understood, may lead to transmission of the disease to patients with problems in adolescence **(9)**.They are unpredictable, cause morbidity and mortality, compromise optimal medical care and are a major cause of post-marketing drug withdrawal**(10).**Wasp or bee stings are the most common elicitors of Hymenoptera venom allergy (HVA) having a great impact on quality of life in adults, children and their parents **(11).(12)**. Seasonal allergies (such as hay fever) occur when the immune system overreacts to allergens, resulting in sneezing, itching, watery eyes, runny nose, and other symptoms.. The immune system's response to pollen and other allergens induced the release of proinflammatory cytokines which affect monoaminergic neurotransmission (12,13).(14) pointed that a history of seasonal allergies was associated with greater odds of mood disorders, anxiety disorders, and eating disorders, but not alcohol or substance use disorders, after adjusting for socio-demographic characteristics and tobacco use. stressing the importance of environmental factors, which are largely socially determined and are patterned according to race and sex. (15).this study conducted at Basrah city and geographically it is hot area . We believe that the hot weather and dust due to the desert weather of the region, especially in the recent period, where the phenomenon of desertification is increasing, led to the emergence of seasonal sensitivity in most of the participants in the questionnaire of this study, and we did not find a study in the region to compare the level of environmental change in the region.**(16)** stated that there are nevertheless wide geographical variations in the incidence of allergies with a south to north and east to west gradient**.**

pollution created by humans may also be increasing carbon dioxide levels in the atmosphere, contributing to higher pollen counts in Europe (17) and higher levels of pollution may be exacerbating the effects of airborne allergens in Asia (18).Men in some instances may even report a higher prevalence of overeating when compared with women in some (but not all) studies(19,20).

Table (1) Distribution of the Variables Related allergies Characteristics N=56 patients

Table.1 descriptive statistics of Sex variable				
Variable	Categories	F	Percent	Cumulative Percent
Sex	Female	22	39 %	39 %
	Male	34	61 %	100.0
	Total	56	100 %	

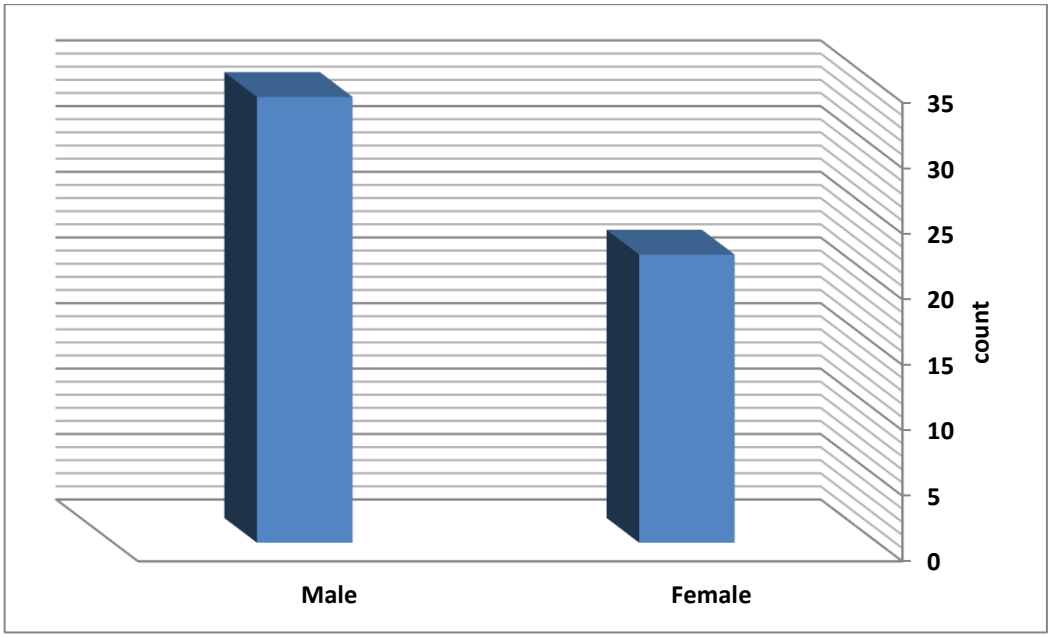

Figure 1 Patients' gender

Table 2 descriptive statistics of allergy type variable				
Variable	Categories	F	Percent	Cumulative Percent
Types of allergy	Seasonal	45	80 %	80 %
	Medicine	5	9 %	89%
	Food	3	5 %	95 %
	Rubber	3	5 %	100 %
	Total	56	100 %	

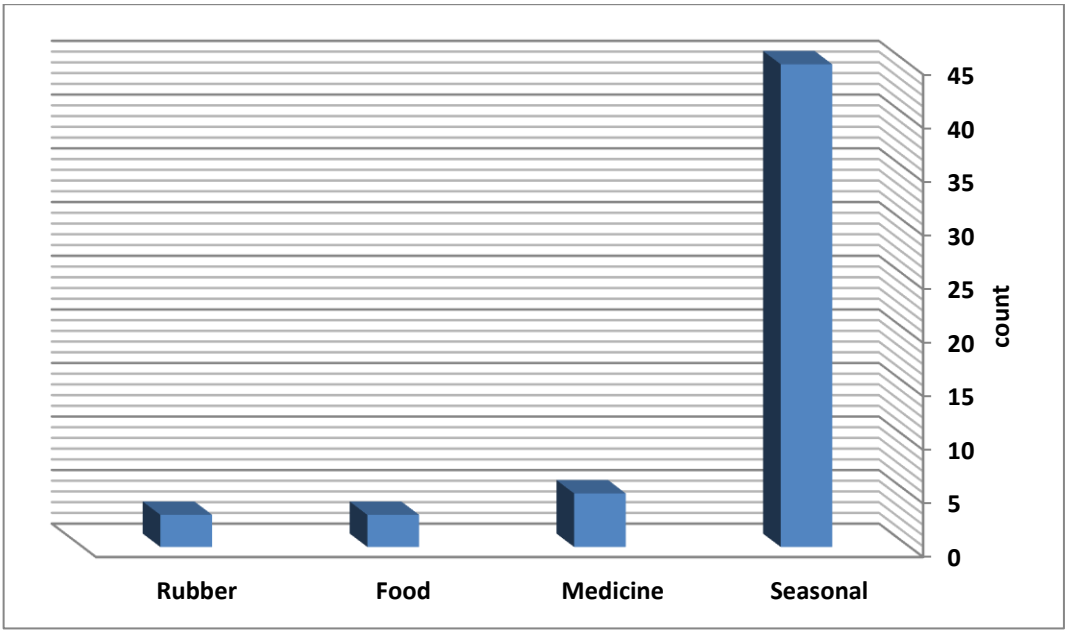

Figure.2 Patients' allergy

Table 3 descriptive statistics of Seasons variable				
Variable	Categories	F	Percent	Cumulative Percent
Seasons	Winter	6	11 %	10 %
	Spring	8	14 %	25 %
	Summer	12	21 %	46 %
	Autumn	30	54 %	100 %
	Total	56	100 %	

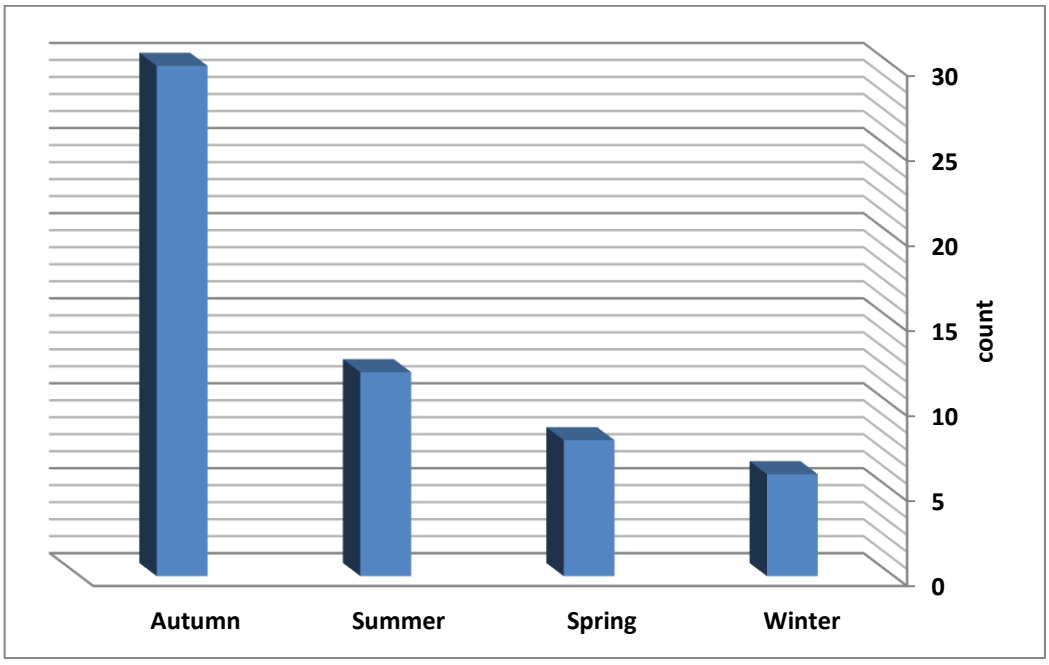

Figure 3 allergy's seasons

Table.4 descriptive statistics of Symptoms variable				
Variables	Categories	F	Percent	Cumulative Percent
Symptoms	Sneezing and an itchy, runny or blocked nose (allergic rhinitis)	35	63 %	63 %
	Itchy, red, watering eyes (conjunctivitis)	4	7 %	70 %
	Wheezing, chest tightness, shortness of breath and a cough	10	18 %	88 %
	A raised, itchy, red rash (hives)	7	12 %	100 %
	Total	56	100.%	

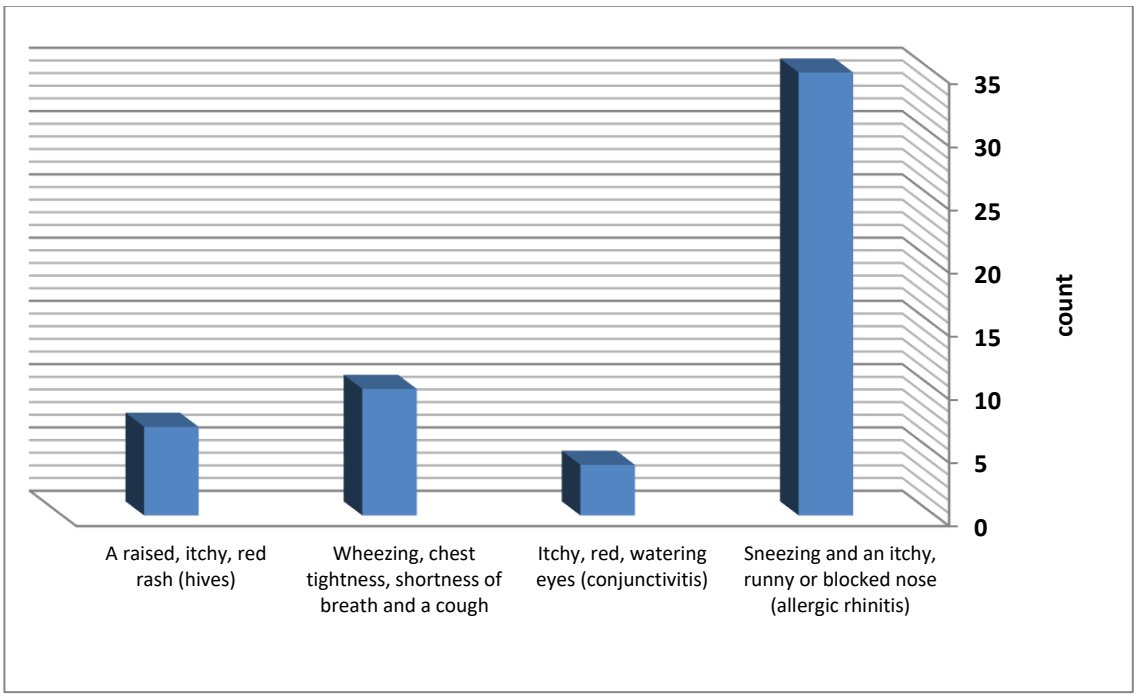

Figure.4 Patients' Symptoms

4-2 The results of the correlation between the allergy variables

Table 4.1.1 Spearman's Correlations between the allergy variables				
		Types of allergy	Season	**Symptoms**
Sex	Correlation Coefficient	0.062-	0.057-	0.068-
	Sig. (P-value)	0.650	0.676	0.619
	N	56	56	56
Types of allergy	Correlation Coefficient	.	0.233-	**0.489****
	Sig. (P-value)	.	0.083	0.00
	N		56	56
Season	Correlation Coefficient		.	0.015-
	Sig. (P-value)			0.915
	N			56
**. Correlation is significant at the 0.01 level (2-tailed).				

Conclusion

The recent study investigated that most participants for allergy questionnaire whom live in the southern area from Iraq (Basrah) suffered from sessional allergy while other type of allergy**.**

REFERENCES

[1] McConnell, Thomas H.). *The Nature of Disease: Pathology for the Health Professions*. Baltimore, MD: Lippincott *Williams & Wilkins.2007 p. 159. ISBN 978-0-7817-5317-3.*

[2] Kay AB.. "Overview of 'allergy and allergic diseases: with a view to the future'". *British Medical Bulletin*. 2000;56 (4): 843–64. doi:10.1258/0007142001903481.

[3] "Asthma and Allergy Foundation of America". *Archived from the original on 6 October 2012*. Retrieved 23 December 2012.

[4] Cooper PJ. "Intestinal worms and human allergy". Parasite Immunology.2004; 26(11–12): 455–67. doi:10.1111/j.0141-9838.2004.00728.x. PMID 15771681. S2CID 23348293.

[5] "The Hygiene Hypothesis". Edward Willett. 30 January 2013. *Archived from the original* on 30 April 2013. Retrieved 30 May 2013.

[6] Skoner DP. Allergic rhinitis: definition, epidemiology, pathophysiology, detection, and diagnosis. *J Allergy Clin Immunol*. 2001;108(1 Suppl):S2–S8.

[7] Desiderio Passali,corresponding author1 Cemal Cingi,corresponding author2 Paola Staffa,1 Francesco Passali,3 Nuray Bayar Muluk,4 and Maria Luisa Belluss.The International Study of the Allergic Rhinitis Survey: outcomes from 4 geographical regions. *Journal List Asia Pac Allergy v.8(1); 2018 Jan.PMC5796967.*

[8] Asher MI, Montefort S, Bjorksten B, Lai CK, Strachan DP, Weiland SK, Williams H. Worldwide time trends in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and eczema in childhood: ISAAC Phases One and Three repeat multicountry cross-sectional surveys. *Lancet.* 2006;**368**(9537):733–743. doi: 10.1016/S0140-6736(06)69283-0.

[9] Edgecombe K, Latter S, Peters S, Roberts G. Health experiences of adolescents with uncontrolled severe asthma. *Arch Dis Child.* 2010;**95**(12):985–991. doi: 10.1136/adc.2009.171579.

[10] Demoly PPW, Pirmohamed M, Romano A. Important questions in Allergy: 1–drug allergy/hypersensitivity. *Allergy Asthma Clin Immunol.* 2008;**63**(5):616–619.

[11] Oude Elberink J. Venom immunotherapy (VIT): clinical efficacy and improvement in quality of life. *Drugs Today*. 2008;**44**:43–45.

[12] Raison, C.L.; Capuron, L.; Miller, A.H. Cytokines sing the blues: Inflammation and the pathogenesis of depression. Trends Immunol. **2006**, 27, 24–31. 12.

[13] Berk, M.; Williams, L.J.; Jacka, F.N.; O'Neil, A.; Pasco, J.A.; Moylan, S.; Allen, N.B.; Stuart, A.L.; Hayley, A.C.;Byrne, M.L. So depression is an inflammatory disease, but where does the inflammation come from?BMC Med. **2013**, 11, 200.

[14] Hans Oh 1, Ai Koyanagi, Jordan E. DeVylder and Andrew Stickley .Seasonal Allergies and Psychiatric Disorders in the United StatesInt. *J. Environ. Res. Public Health 2018, 15, 1965; doi:10.3390/ijerph15091965.*

[15] Messias, E.; Clarke, D.E.; Goodwin, R.D. Seasonal allergies and suicidality: Results from the National Comorbidity Survey Replication. *Acta Psychiatr. Scand.* ***2010****, 122, 139–142.*

[16] European Federation of Allergy and Airway diseases, Patients Associations, (EFA) Fighting for breath. *http://wwwefanetorg/activities/documents/Fighting_For_Breath1pdf.*

[17] Ziska, L.; Knowlton, K.; Rogers, C.; Dalan, D.; Tierney, N.; Elder, M.A.; Filley,W.; Shropshire, J.; Ford, L.B;.Hedberg, C. Recent warming by latitude associated with increased length of ragweed pollen season incentral North America. *Proc. Natl. Acad. Sci. USA 2011, 108, 4248–4251. [CrossRef]*

[18] .Ziello, C.; Sparks, T.H.; Estrella, N.; Belmonte, J.; Bergmann, K.C.; Bucher, E.; Brighetti, M.A.; Damialis, A;. Detandt, M.; Galán, C. Changes to airborne pollen counts across Europe. *PLoS ONE 2012, 7, e34076*.

[19] Lee-Winn, A.E.; Reinblatt, S.P.; Mojtabai, R.; Mendelson, T. Gender and racial/ethnic differences in bingeeating symptoms in a nationally representative sample of adolescents in the United States. Eat. *Behav. 2016,33-27,22*.

[20] .Striegel-Moore, R.H.; Rosselli, F.; Perrin, N.; DeBar, L.;Wilson, G.T.; May, A.; Kraemer, H.C. Gender difference in the prevalence of eating disorder symptoms. *Int. J. Eat. Disord. 2009, 42, 471–474.*

[21] *21.* WASFI DHAHIR ABID ALI , LUAY ABDULWAHID SHIHAB , MARYAM ABDULKAREEM ABDULRAZAQ , NOOR SABAH DAIF , & NABAAMUSSAB HASSAN, ASSESSMENT OF TEACHERS' KNOWLEDGE ABOUT FIRST AID SOME BASRAH CITY SCHOOLS, BEST: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS) ISSN (P): 2348–0521, ISSN (E): 2454–4728 Vol. 9, Issue 02, Feb 2021, 7–12.