



Precursors of Pollen Allergies: An Anthro-Economic Perspective

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Abstract

This explanatory study is intended to determine ‘precursors of pollen allergies, an anthro-economic perspective.’ In a nutshell, it deals with how pollen allergy is produced, circulated and dealt with in the setting of twin cities; Islamabad and Rawalpindi. Medically, allergies can be prevented but not cured. The cultural means of prevention and care are always preferred by the needs of the body, health, age and disease accordingly. The word anthro is inconsistently used in a way human deal socio-culturally with the issue. Objective: The paper attempts to examine some environmental and socio-cultural determinants of pollen allergies in Rawalpindi and Islamabad. Materials and Methods: Socio-Economic Survey Form, FGD checklist, interview guide and life histories were prepared to collect data in order to unveil the cultural mythology on pollen allergies. The study reveals that “the livings of pollen patients have seen under the lenses of cultural economy”.

Key Words: Cultural Economy, Nose Redness, Itchy Eyes, Paper Mulberry, Pollen Allergies Twin Cities

JEL Classification: H20, I10, I11

Introduction

Historically the entire time span of human beings clearly indicates that he still is a social animal having a deep relationship with plants used as diet and taking shelter when living in groups, tribes and chiefdoms. The living groups always settled, keeping in mind the environmental conditions to fulfil their basic need from the natural habitat. They migrated to fulfil their socio-economic needs. The migration rate slowed down gradually, and now it's almost zero. Anthropology studies the livelihood of contemporary and modern man. It precludes all material and non-material necessities. An economy is a material form of culture embedded in a lot of immaterial contexts. The term “economy” originated from the Greek word *Oikos*. It signifies a house-centred estate. Aristotle firstly had possessed this term *Oikos*, he analogized mart commerce market (Hann, 2018)

Material culture included shelter, foodies, neighborhoods, educational instruments like books, institutes, religious places and factories. Non-material culture refers to norms, language, institutions, values, beliefs and also includes the myth of that society. Technology is a vital aspect of material culture. Both material and non-material make

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an organized society.’ (Hegazy, Hegazy, & Yaghi, 2019). Pollen construction data by Pakistan Meteorological Department reveals that daily pollen count is based on a 24 hours’ cycle but during those hours’ pollination is different in different plants. ‘The changing climate affects as aeroallergens within particular pollen plants seasons’ (WAO, 2016).

In Pakistan, Male Paper mulberry causes infection in the spring of every year from the month of March and continues to effect during this season of March 2020 too. The fact that the sunlight is insufficient to make any major effect in March, the pollen season is, therefore, prolonged up to end of May 2020. Amazingly, the pollen allergy, especially from paper mulberry, had become a common phenomenon and occurred annually without fail. This allergy spread became a cause of some new diseases or illnesses every year. ‘Pollen allergies cause mental illness, so if one member of a family suffered, the entire family was affected and felt sick. The family should avoid going close to flowers at home. Seasonal allergies have had direct effects on moods’ (Oh, Koyanagi, DeVlyder, & Stickley, 2018). The beauty of the capital of Pakistan is Margalla hills which have enriched beauty by different green herbs and shrubs. A major area is covered by the paper mulberry trees which cause allergies in the spring and autumn season. So, the cutting of trees is made to save the community from pollen allergies which are problematic for asthmatics as well. The article is not about access to health services or inequalities in the capital, but the way economic anthropology like some indigenous environment is problematic for natives but friendly for visitors.

Islamabad and Rawalpindi consist of natural and formal beauty. ‘Pollen count fluctuates from area to area in twin cities. That pollen count data support the doctors in understanding the severity as well as for the patients to keep a record of the atmospheric pollen count of that particular day and during the whole season too. State of affairs of climate and climatic changes in any area is helpful in observing the tracheal allergies’ (Perveen, Khan, Zeb, & Imam, 2015). Anyhow, yellowish male parts of trees, well-preserved in earth dregs, provide the greatest record of past plant life, so ‘They were a central source of facts on macroclimate and soil shield during the Quaternary Periods’ (Prayers Seppä & Bennett, 2003).

Pollen allergies indeed have a lethal effect on humans. The pollen is powder shape embedded in trees, flowers in some cases and grasses too. It is produced in green plants and their flowers when the season is ripe help them to grow. ‘Pollen allergies were firstly defined by John Bostoch in 1819. He was a surgeon in London at Guy’s Hospital’ (Xie et al., 2019). Major communities of twin cities of Rawalpindi and Islamabad start feeling unwell in pollen season. There are two major pollen seasons in which paper mulberry and *bhang* (cannabis) are common—besides, parthenium, grass pollens, pines, and alternaria to become fully grown. Abs rashes, sneezing, itching on skin, itching in the throat, coughing, flu, redness of eyes, and skin are common during allergy season. People carry an epipen for emergencies, and some of them severely struggle with blocked sinuses. Sinuses blockage leads to cold-like symptoms and has a serious impact on one’s ability to sleep.

Materials and Methods

The study was based on three phases as a whole. It was completed in six months that included data collection, statistics compilation and descriptive findings. During the first phase, an initiative was taken to draw the sample of the respondents. Besides, a process

for selecting key informants in the context of rapport building, administration of socio-economic survey forms and observation as a tool was conducted. During the second phase, the interview guide was prepared and administered and performed on two focus group discussions on allergy patients. During the third phase, five focus-group discussions were carried out, and fourteen life histories conducted. The study focused on the extensive role of the number of trees and other floras that primarily caused pollen in twin cities

Literature

Every year pollen allergies affect a large population in the twin cities, which also disturbs their livelihoods. The medications of allergies are available at unreachable rates for average members of the community. 'Cost and economy of any country is based upon the regulation of their health system. While discussing the causes of economic crunch, the consequences that lead to disaster are the environmental concerns.' If the health is strong and vibrant than that country economically ranks higher in rungs of progress. (İriş, 2016). 'An illness experience changes man's activities and his role within a culture setup. After getting a chronic disease, he sometimes gets sick, and at times, assumes to be sick' (Kleinman, 1980). 'Cognitive capitalism and the cognitive-cultural economy are related to a traditional society. Today's economy works on the overall characteristics of production as well as consumption. Whatever the public demands from our culture, the modern economy just rules out the support to nations towards global economic culture' (Scott, 2010). In this era, the demands are globalized. A number of software applications are helping the nations to access common medications for ailments as well as common solutions to many problems.

Pollen construction data by Pakistan Meteorological Department reveals that daily pollen count is based on a 24 hours' cycle but during those hours' pollination is different in different plants. 'In environmental anthropology, climate change is not only a local phenomenon, but it also brings about a global change. However, it may vary along with its long- or short-term sequences in different places' (Crate, 2011). 'However, climatic pollen study is a complementary stem for the patients who are sensitive to it. But some patients are not satisfied by the vital tools of pollen counting that could be a good complement to modern pollen counting because the day count is different from symptoms' (Davis et al., 2013). Recommendations from NIH clearly emphasize that at the beginning of spring pollen plants start pollinating due to which count in the air rises. NIH recommended avoidance of greenery for those averse to pollen. A community should be directed to avoid gardens with abundant plants for jogging, morning or evening walks, keeping their children at home to save them from allergies. People must keep their doors and windows shut. The foremost home of pollen allergy is Islamabad, where paper mulberry is found in abundance. Their rising count is 34,585 per cubic meter (PCM) in 2015' (Ikram & Junaidi, 2016).

Along with various types of allergens, there are varieties of vaccines to cure them. 'Genetically, the food allergies, pet allergies and pollen allergies are treated by different vaccines. All treatment is temporary and complicated. Every year plant pollinating starts without miss which is the main cause of pollen allergies' (Ruba Memon & Yudy Persaud, 2020). However, the nature of man is to ignore his current practices in case they do not find much value. 'Anthropology makes him realize all the surroundings to make a firm bond with humans and other organic and inorganics segments of nature.'

When a man loves the plants, smells them and uses them vigorously, he finds some value in it. But if he faces a harsh episode, he too becomes harsh to it' (Nader, 1997).

Discussion

'In the age of globalization climatic change is not only a natural phenomenon but it is also created by human beings who like to live in their own circle of happiness and prosperity without knowing its side effects from past history. (Bu, Lin, & Zhang, 2016)



Figurer 1

Culture is made only for human beings, and it is termed as “man-made. Every culture is unique according to its needs and requirements. ‘Human being definitely requires a congenial environment to live. He needs economic conditions to survive, like suitable dressing and a reasonably good diet. Man, also needs good health and knowledge to know himself and his environment. (Koptzeva, 2010). Economically backward nations face troubles in daily living and health shoots. ‘Societal disarrays lead to speedy urban migrations, disappointment, poverty and joblessness and causes lack of management resource settings in Pakistan. Unemployment problems lead the younger generation towards smoking and other unhealthy activities which weaken their immune system.’ (Lewellen, 2006)

Multi Pollen Periods

The reviews in the years 2019-2020s in Pakistan mentioned different pollen episodes in all over the country as well as in twin cities of Islamabad and Rawalpindi. During multiple episodes of pollen attacks, paper mulberry, cannabis was highly observed by pollen sensitive people inclusive of ragweed, grass pollens, acacia, eucalyptus and pines. ‘Allergies not only hold a singular space they spread all over the area where the tiny pollens move out. Many Americans strongly believe they have more than one allergy’s (Dennis 2010). In multiple pollen communities, during every pollen season allergy behaves like a thief who burgles your home and steals valuables; as a result, all of your preventive measures will fail.

Separable Allergic Infections

Though allergic symptoms and severity of reaction varies person to person in a single area because it is basically an overreaction of the immune system. 'Plant blossoms and their pollination start gradually and peak and obviously spike. However, in the people who are high pollen sensitive, allergies trigger earlier in them' ([Sierra Heredia, 2019](#)).

Paper Mulberry Pollen Infections

Periodic allergic asthma and hay fever are ordinarily causation of pollen allergies; hay fever actually being caused by wheat threshing. Catkins of paper mulberry, current of air pollinated grasses and pollen allergies are leaned towards airborne pollen from weed and tree species. 'Divergently, the pollen of flowering plants is tiny, tacky and heavy and does not blow very far on their own, and require birds and bees to carry them to different places' [Bonertz et al., 2018](#). Their major targets are human beings as their sticky parts get attached to human clothes, hair and skin. Pollens enter into the body through nose and mouth by breathing that creates rashes inside the body.

Medical Anthropology in Health Economy

Economization and medical anthropology deeply rooted together by their deep social relationships. Physical anthropology on the discussion of *tib* (medication) and *tabeeb* (doctor) modernizes the practice by its global economic patrons. 'In medical anthropology, the doctor and patient relationship is also defined as the health care system of that society' ([Sharma et al; 2014](#)). Their precautions, dealing, and counselling varies by their consultant fee. Pollen patients do talk about NIH vaccines but on the contrary, rely on domestic remedies from allergies.

Indigenous Knowledge and Economic Performance

Economic and cultural perspectives in every community always exist side by side. When the economic conditions are vibrant, the cultural values become less attractive though they stay there. The regional climate changes the culture as well. Likewise, before COVID-19 people in twin cities rarely used masks in any areas of Pakistan because they felt secure from pollen allergies. 'When the change in climate and economic evolution get mixed with practising culture, then the tri-cultural stages like hindrances, mixing and impelled culture are adopted. Another cultural thought is when a state has less accumulated resources or advanced economic conditions, their indigenous knowledge remains unpublished. Distinct culture practices come with higher economic values.' ([Deng, Wang, & Zhao, 2016](#)).

Health Sustainability in Targeted Economy

Every year a large chunk of the health budget is allocated for health. The health budget of a country must be higher than the education budget; only then more money can be spent on the health of the people and keep them fit and vigorous. 'However, good health leads to progress and prosperity. Practices of advanced technology, substantial resources and sufficient medical personnel, trained staff at various levels in hospitals are a strong indication of the country's progressiveness. 'Environmental conditions are uncertain and mostly remain unexpected' ([İriş, 2016](#)). The seasonal changes bring numerous allergies

to people due to the unstable economy in Pakistan. A renowned proverb about health and economy is “health is wealth”. Health cannot be earned by money.

Allergies Cure in Traditional Country

‘A very beautiful phenomenon in nature is that every culture practices its own rituals, belief system, use of herbal medicines as well as its own local and medicines for their recovery and comfort’ (Deka, 2018). In the selected communities of Islamabad and Rawalpindi, a maximum of them kept oil in their room in an open pot. In their opinion, the mustard oil absorbs germs and pollen from the environment when one sneezes. The amber colour of the oil is radiant to eyes which in itself is a cure. A maximum number of people applied olive oil on the nose as that would prevent pollen entering the nose and causing infection. Generally, the whole community was using *Qehwa* of *amrood*, *adrak*, *long*, *elaichi*, green and black (*Qehwa*, ginger, green cardamom) and many of them used green tea.

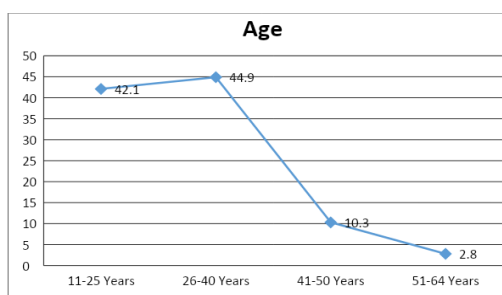
A few more people who had some awareness level started their medication by purchasing *Asthma inhalers*, *foster inhalers*, *kestine myteka* and *neo antial* tablets and keeping them at home. As a result, the other members of the household too used them. At home, they used the nasal wash prepared at home. Mythological expressions about desi medicines in Pakistan are different *jarri booties* (medicinal plants) for treating pollen allergies by use of green tea, lemongrass, *elaichi* *Qehwa*. ‘Ailments treated by various herbs and shrubs vary in their natural ingredients and treatment capacity from area to area. The ethnobotanical knowledge of practising the modern medicinal system in developing countries played a fundamental role. A number of families are totally or partially dependent on botanical medicinal systems’ (Moktan & Rai, 2019). They washed each nostril one by one for ten minutes with saltwater.

Cultural Trade in Allergies Cure

The cultural economy is tradable in society, and it became the culture of that society. Residents of Shigar Valley cultivated many *wild* medicinal herbs and some kinds of wild plants. In traditional medicines, some practitioners use flowers of plants, and some use medicines from the pulps of trees for treating ailments, while some cures demand treatment from seeds of flowering plants, roots, pulps. These flowers were used in traditional medicinal treatment (Abbas, Khan, Alam, Khan, & Abbasi, 2017).

Allergies in Different age Groups

Different age groups in a single community have different types of allergies. Allergies are not similar, but now the affected community was suffering more from pollen allergies than anything else.



Graph 1

The above graph determines the allergies in different age groups. It denotes that allergies are highly observable in young people of targeted communities. SPSS was used to solidify the data. it shows that 11-25 years old com

Targeted community is faced with 42.1% allergic symptoms while 26-40 years olds had 44.9% allergies, and they were highly affected persons. Allergies in the age of 41-50 were 10.3%, and in the last selected group of 51-61 years, 2.8% were found with allergic symptoms. The lower percentage of allergies in some age groups may be due to the fact that the Allergy Center in NIH did not recommend vaccines in people above 40 years and babies less than 15 years old. So, their visits were less, and they were not being targeted properly. The centre in NIH in Islamabad is famous due to its unique vaccine formula for the pollen allergies and the only health centre in Pakistan that treats all types of allergies. 'The aged metropolitan has developed their own activities that can be termed as an emergent sphere in their lives in accordance with socio-health sciences. In modern societies, according to social and health sciences, higher life expectancy is common now. Urbanization creates more opportunities paves the way to the successful achievement of livelihood for the aged. They live long happy lives than the ageing community of the village. Their social interactions with their age groups are much higher and fruitful. Socio-development of interactive pursuits is higher'. ([Van Hoof et al. 2018](#)). Anthropology exposes the un-observed culture, and that is its beauty.

Geographic conditions are primarily responsible for climatic changes. They directly generate changes in culture outlook, or we can say that environmental adaptations are part of a culture like pollen allergies in twin cities Rawalpindi and Islamabad. The environmental factors affect health and economy as there is a certain cost that has to be borne by the government. Economic revolution is a part of the revival of any culture, and culture may cause an economic Revolution.

Those who suffer from Asthma are more likely to catch the high respiratory allergic disease. After passing through a long term and intense allergenic episode, the patients become prey to asthma that begins to develop in their bodies. Asthmatics are not only sensitive to pollen particles but are also affected by respiratory infection with air pollutants. Every year the blooming spring season brings diseases like flavor cough allergies, watery eyes and running nose.

Every country has its own biomedicine system like the traditional medicinal system. We are well aware that Pakistani weather conditions are different from any weather conditions of other countries. The country has a long hot summer season and just three months of winters. 'In Sikhism there was a tribal system, and each tribe had its own cultural medication, religious and language structure. The number of rural societies was still reliant on homoeopathic herbs and shrubs to cure the pollen disease. There were more than 7500 kinds of trees and plants that were used to make drugs for the treatment of ailment' ([Lepcha et al., 2019](#)). 'The cultural Indigenized healings must be done by indigenous plants therapies. Botanical plants are always homegrown herbs which are used by natives. The use of native medication promotes the cultural economy as well as it saves the culture too' ([Israelyan, 2019](#)). The result is they buy on their own and use it on their own.

The Loss and Profit of Pakistan Health Economy

The allergenic pollen content always depends upon the effects of vegetation climate

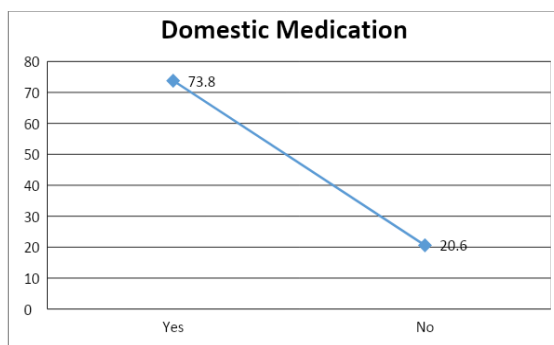
factors on pollen. The plant pollen is found everywhere in Pakistan, but the paper mulberry with high pollination content affects the sensitive pollen population every year because the plants are found in great numbers in twin cities. Anthropology gives a direction, and sense to the hidden problems for the betterment of society and in the process finds a solution to the problem like Deforestation of Mulberry. 'It was noticed that paper mulberry trees were damaging the facade of the city. An action plan was implemented to get rid of those trees in four phases. Phase 1 was spearheaded from April 2017-December 2017. Phase 2 was enacted from January 2018 to December 2018. Phase 3 from January 2019 to December 2019. Last and fourth phase started in January 2020 and will end in December 2020. ([Prayers' Zahra Wadood Fatemi, 2017](#)). People sensitive to the challenges face allergenic pollen during transportation of some edibles and many others from weather extremes like thunderstorms.

Environmental Economy and Human Well-Being

Green natural environmental beauty has a strong bonding with Pakistan's economy. Visitors from Pakistan and all from over the world visit to see the Margalla hills beauty. 'A core organ of environmental complications has its origins in the unsustainable economic systems, and this leads to the letdown of human well-being even though environmental excellence matters a lot for the well-being of humanity. Economics with traditional orientations group up because of its efficient growing objectives' ([Pearce, 2002](#)). These traditional economic bonds with feeble roots may be loss of health conditions of the general public.

Domestic Medication and Culture-Economic Values

With the passage of time, as new innovations were made in the field of medical science, the bio-medicine system was gradually introduced to the local communities were comparing both systems by the term *Angreji Dawa* (Biomedicine) and *Desi Dawa* (folk medicines)' ([Hardiman & Raje, 2008](#)). Another commonly used term in Pakistan is *Gharelo Totkay* (domestic medication) in this age.



Graph 2

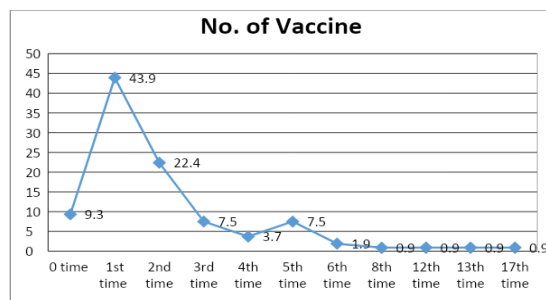
The above and below tables are economically inter-linked the visiting patients were getting their vaccination minimally 3-4 times. Most of them use vaccines during the season only when the allergies are on peak. The more sensitive patients use *desi* and domestic medicines. Pakistan being a linguistically and culturally heterogeneous country comprises traditional, different communities that use their own healing systems

as prescribed by local practitioners and some people follow the sayings of the old people, considered wise, by using the term *siyany kehty hyn*. 'This is like the customs in the society pass through oral communications' (Zhimo, 2011). Changes in culture and folk traditions with the advancement in science and technology is killing real culture. 'Local medication is named indigenous medicines, Folk medicines and Traditional medicines in the modern age are going out of use, and people prefer modern allopathic medicine instead. In the past, when access to modern medicine was not possible, neither its practice common, the *siyanas* (old wise people) used medicines known as *Dawa Booti/ Dawa Darro*. On the other side, some Pakistanis who have their contacts in foreign countries import their pollen allergies medicine like Asthma inhaler, Foster inhaler through them and the pollen patients think that these inhalers were more effective than Pakistani medicines. But they somehow ignored the fact that the local medicines are always made by local pharmaceutical companies keeping in mind the local environment of a particular country.

Respiratory infections and thoracic asthma are everyday immunological complaints in many countries due to the grass pollen found widely in the world. It is clear that when dry flu falls into the throat, it causes asthma and asthmatics are very sensitive to climatic changes and pollinating plants.' (Waqar et al., 2009). 'World Health Organization organized a workspace to debate the connotations over weather conditions, climatic changes, pollen drifts and allergic conditions, and the probable necessities to adapt pollen calculations in altering the climate.' (Huynen et al., 2003).

Variation in Vaccine Episodes among Allergic

In order to do a lucrative business, many private clinics and doctors trap innocent citizens by prescribing imported medicines that are highly expensive. Those medicines in most of the cases are out of reach of even well to do pollen patients. The medicine can only be purchased by a doctor from the selected pharmacy stores and dispensed to those few patients who can afford to buy.



Graph 3

Above graph shows the number of vaccines used in their allergy treatment. 9.3% of patients did not use vaccines because they think that allergies have not been treated; rather, it turned out to be preventive in personal and some domestic ways. 43.9% of the population use a single vaccine. 22.4% of the population used the 2nd vaccine. 7.5% of patients used the 3rd vaccine to cure their pollen allergies. 3.7% of the population reached the 4th vaccine. 7.5 used the 5th vaccine for allergy treatment. 1.9% of the patients were using the 6th vaccine. 0.9% population use the 8th vaccine. Only 13% of

vaccines used 12th time to cure allergies. 0.9% of people used the vaccine 17th times. 17th-19th vaccines were the complete pollen allergy treatment course.

There were three main reasons behind the incomplete allergy treatment.

- i. They recovered a bit, so they gave up vaccines
- ii. They were misguided by others who said vaccines were a temporary solution or it may make you habitual.
- iii. Their condition had not improved by a vaccine the cost of vaccines is exorbitant, and most patients are travelling from far off areas have to spend a lot of money on transportation. Though NIH is only a centre to cure allergies, they facilitate the patients by providing them emergency care, vaccines, inhalers and other medications. The staff comprises both male and female staff to facilitate both male and female patients.

Conclusion

This study shows the precursors of pollen allergies and their cultural and economical means of curing methods in twin cities of Rawalpindi and Islamabad. There are multiple episodes of allergies in a single year in Pakistan. Anthropology shows the origin of allergies and how it's a physical phenomenon, in contrast to people's general belief that allergies do not exist at all. Every culture has its own medicinal system. Every year plant pollination is different. The year 2020 recorded high pollen that was 39,547 till 20 April. It remains to be observed that the high count carries more chances to exercise culture-economic perspectives. It was like every community had its harmful plants so that community may have had their bio-medicine in that soil too. The study reveals that the health issues are always cultural.

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