



A Survey Study To Assess The Effect Of Arsenicum Album 30c As A Prophylaxis For SARS CoV 2 (Corona Virus -Covid 19)

Janet Cynthia Selvaraj, Satesh Thangaraju
Professor and HOD Associate Professor and Guide

Sri Veerabhadreswar Homoeopathic Medical College and Hospital, Humnabad

Vinayaka Missions Homoeopathic Medical College and Hospital, Salem

ABSTRACT:

The new virus Covid 19 had really challenged the whole world in all aspects of life. The prevention and treatment seemed very difficult and the death rates were very high among all countries. The introduction of Arsenicum album as an immune booster against Covid 19 was really a preventive method introduced in homoeopathic system of treatment.

This cross-sectional survey study was conducted to assess the effect of Arsenic Album 30c as prophylaxis for SARS CoV 2 among the general public. Digital consent was obtained from the participants of Google forms survey and written consent for the hard copies survey. Oral consent was obtained from participants who participated in telephonic interviews. Google form was created and the link was shared via social media i.e Whatsapp, Facebook, Instagram and also was sent through personal emails. The hard copies were distributed to institutions who had previously distributed Arsenic Album 30c in mega camps and mass distribution programs. The results were analyzed using Chi-square test shown that Arsenicum album had a positive impact as immune booster in our society.

CONTENT:

The world seemed to be carefree and innocent about what is about to follow in the world, until December 2019 when pneumonia appears for the first time in Wuhan, a city in Hubei Province, China in a group of patients, cause identified as a novel Corona virus. The new Corona virus quickly spread throughout China, causing a disease and then expanded to different places in the world, spreading to each continent and every country (except Antarctica). Determining the pandemic, the World Health Organization in February 2020, named this disease as Covid19 (Corona viral disease 2019). This disease causing virus is a Severe respiratory syndrome of Corona 2 (SARSCOV2) virus.¹

The disease was named as Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) by the

International Committee on Taxonomy of Viruses (ICTV) ² and was announced by WHO as the new name of virus on 11th of February 2020. It was declared as Pandemic by WHO on 11th of March 2020.³

The incubation period for Corona Virus disease 2019 (COVID-19) is two to 14 days, after which the signs and symptoms appear. The period after exposure and before the symptoms is called incubation period. Common signs and symptoms can include:

- Rise of temperature
- Cough
- Fatigue

Early symptoms of COVID-19 may include a loss of taste or smell.

Other symptoms can include:

- Shortness of breath or difficulty breathing
- Muscle aches
- Chills
- Sore throat
- Runny nose
- Headache
- Chest pain
- Pink eye (conjunctivitis)

Emergency signs and symptoms can include:

- Trouble breathing
- Persistent chest pain or pressure
- Unable to stay awake
- Confusion
- Blue lips or face⁴

Pandemic disease and Homoeopathic approach is not a new one, from eighteen century to twenty century Homoeopathy play an important role for root out the disease. Homoeopathy is the science and art, which makes patient mentally as well as physically healthy. In case of pandemic disease Homoeopathic medicine acts as a “Tram card” to the human being. The preventive aspect of Homoeopathy is well known, and historically, As per reports Homoeopathic medicines has been used as preventives while Cholera, Yellow fever, Spanish Flu, Diphtheria, Typhoid, Scarlet fever and so on affected as an epidemic. During such happenings, symptoms are collected from few cases and a remedy is arrived upon which happens to be very effective for that epidemic and that medicine is Genus Epidemicus.⁵

Arsenious oxide, white arsenic, has been the most prolific killer down the centuries. As an odorless, almost tasteless, and readily soluble white powder, it has provided an all too convenient weapon for the homicidal poisoner, the more so as the symptoms of poisoning can so easily be mistaken for those of so-called natural disease.

Arsenic became known as “The King of Poisons” because of its lethal potency and because it was undetectable. In a confirmed report, a few celebrities have been killed with arsenic: Napoleon Bonaparte, Simon Bolivar and King George the 3rd of England.⁶

This killer drug was used to cause various epidemic attacks till the 20th century and the killer when potentized became a curative agent of great worth. This genius of medicine then has worked as a preventive and curative in various instances in the history of epidemic and pandemics.

CCRH conducted a reportorial analysis of the symptoms of COVID-19 for releasing such an advisory which is used conventionally as a tool for matching the symptoms of Materia Medica and the disease. The symptoms of the medicine demonstrated a significant similarity with the disease picture of COVID-19 available from reports of the disease in Wuhan, China.⁷

Most of the presenting symptoms of the disease are well covered by Ars. Alb, especially fever, cough, shortness of breath, loss of smell, coryza, fatigue, diarrhea, nausea, and others. The medicine is frequently used by homoeopathic physicians in the treatment of conditions similar to COVID-19, especially in influenza-like illnesses.⁸

The Ministry of AYUSH after careful observation of the available cases and symptomatology, suggested Arsenicum Album 30c as a prophylaxis for SARS-CoV-2:

Dosage: 5 pills daily in the morning for 3 consecutive days, to be repeated after 21 days.

Arsenicum album, used during Spanish flu in the 19th century, Swine flu, Dengue, and most recently, COVID-19. The therapeutic nature of the Arsenicum album on leukocytes and MT4 cells is due to the toxic effect of Arsenious oxide against them, verified by the concept of Law of similar. This is the concept behind their use during pandemic and epidemic attacks as an immune booster and as a curative medicine in the attack of respiratory diseases like flu. Virus-induced pyroptosis triggers a severe inflammatory response inducing a massive release of chemokines and cytokines called “cytokine storm.”⁹ This cytokine storm induces widespread lung injury and severe acute respiratory illness or acute respiratory distress syndrome.

Therefore, a rapid and well-coordinated immune response is the key to the resolution of COVID19. Clarke also mentioned “When ‘colds’ appear in a family, let all those who are unaffected take Ars. alb thrice daily.”¹⁰ It had been observed that based on the hypothesis of paradoxical pharmacology,

Homoeopathic medicine Ars. alb has the potential to repair the damages in the cells caused by arsenic trioxide molecules even at molecular levels in protein and nucleic acids.¹¹

Arsenic trioxide in crude forms also demonstrated antiviral properties over viral strain bacteriophage.¹² Therefore, there is positive evidence that Ars. alb can act as a potential antiviral agent. A study conducted by Ive et al.¹³ showed that Ars. alb in 6C, 30C, and 200C increased and restored the viability of MT4 cell lines which had been intoxicated with the arsenic trioxide. The destructive function of the arsenic trioxide on leukocytes and stimulation of pro-inflammatory cytokines, chemokines are rather neutralized by ultra-high dilutions of Ars. alb.

Research also shows the power of homoeopathically prepared Ars. alb helps reduce DNA and RNA damage and restores them to arsenic-induced cytotoxicity in mouse models. Ars. alb is shown to decrease IL-6 production in

laboratory models, which is an important inflammatory marker and responsible for the inflammatory process and inducing cytokine storm. Decreased production prevents the damage of the human body from such severe inflammatory responses. Dalboni et al.¹⁴ performed experimental cell lines of macrophages using high purification of Ars. Alb 200C potencies showed reduction in interleukin-6 production.

Das et al.¹⁵ in their study demonstrated Ars. alb 30C enhances cell function, GSH, G6PDH, CAT, and SOD significantly. Homoeopathy never treats a disease according to diagnosis or the causative organisms of the disease, rather it treats the person based on the symptomatology of the disease.

The action of the remedies is noted from their effects on healthy human beings and recorded in the homoeopathic Materia Medica. These symptoms are matched with the diseased individuals and the remedy containing the most similar symptoms to the disease is prescribed. The symptoms present in homoeopathic Materia Medica¹⁶ under Ars. alb were similar to the observed symptomatology of COVID-19.

Arsenic molecules are generally absorbed in the body through aquaglyceroporin channels, the same channel is used for the transfer of glycerol and water.¹⁷ When such medicines are ingested by healthy individuals, being highly diluted in nature, they are only sufficient to develop an immune response that subsides subsequently due to the very low dose of the medicine. Similar to the theory of vaccination, the human body retains the memory of the immune response and prevents the disease similar in manifestations until the memory lasts.

Homoeopathic medicine Ars. alb has previously shown positive results over laboratory studies over the harmful effects of arsenic trioxide over human cell lines and animal models. Clinical trials have also been conducted to demonstrate the encouraging effects of Ars. alb over arsenic toxicity.¹⁸

MATERIALS AND METHODS

3.1 Study Design

This is a Cross – Sectional Survey study for assessing the effect of Arsenic Album 30c as a prophylaxis for SARS CoVID 19. A questionnaire was prepared and used to perform this study. This is a Descriptive Retrospective Study.

3.2 Study Setting

Setting is the physical location and the condition in which data collection takes place in a study (Polit, 1995).

Setting refers to the area where the study is conducted. For the present study the study was conducted at Online, offline and through telephone.

All General public who were willing to participate in the study were included in this study. This study is not restricted in terms of geography, gender, age or time.

Population:

A research population is generally a large collection of individuals or objects that is the main focus of a

scientific query and having same characteristics. Population for the present study comprises mainly of people who had taken Arsenicum album 30c as a Prophylaxis.

3.3 Sample and sample size:

Sample

Sample is a subset of a population that is used to represent the entire group as a whole. The sample of a study is simply the participants in a study.

Sample Size

The sample size was estimated to a minimum of 120 members. Sample size was determined by using study literature of sources and the calculation was based on precision rate. At the end of the study, the number of drop outs samples were calculated.

Sampling Technique:

Sampling is the process whereby a researcher chooses sample. In this study Convenience Sampling technique is used to select samples from the population.

Criteria for selection of Samples:

Inclusion criteria

All Ages

All gender

Exclusion criteria

Those who are not willing to give consent for their data to be used.

Incomplete survey forms

Data collection Procedure

1. Survey data to be collected using Google forms questionnaire.
2. Hard copies of the questionnaires distributed to people
3. Telephonic interviews for people who have taken prophylaxis in mass camps and in institutions.

3.4 Research Procedure

This cross sectional survey study was conducted to assess the effect of Arsenic Album 30c as prophylaxis for SARS COVID-19 among the general public. Digital consent was obtained from the participants of Google forms survey and written consent for the hard copies survey. Oral consent was obtained from participants who participated in telephonic interviews. Google form was created and the link was shared via social media i.e Whatsapp, Facebook, Instagram and also was sent through personal emails. The hard copies were distributed to institutions who had previously distributed Arsenic Album 30c in mega camps and mass distribution programs. There are 25 questions in the Questionnaire. The questions are in English and the vernacular, Tamil. The questionnaire can be roughly divided into three parts, demographic questions, study specific questions and questions of social concern.

The first mode of collection of Data was through Google forms. Google forms were created and link was shared through Whatsapp, Facebook, Instagram and through email.

The second mode of data collection was through distribution of hard copies of the questionnaire. This research was mainly done in three institutions, Vinayaga Missions Homoeopathic Medical College, Salem, Excel Medical Institutions, Kumarapalayam and Al Ameen Muslim Higher Secondary School, Madurai.(Aura Homoeopathy, Madurai)

The third mode was through telephonic interview with people who have received Ars.Alb 30c through mass prophylaxis camps at Tiruchirapalli (Akash Homoeo Cure) and Thrissur.(Carewell Homoeopathic Infertility Centre)

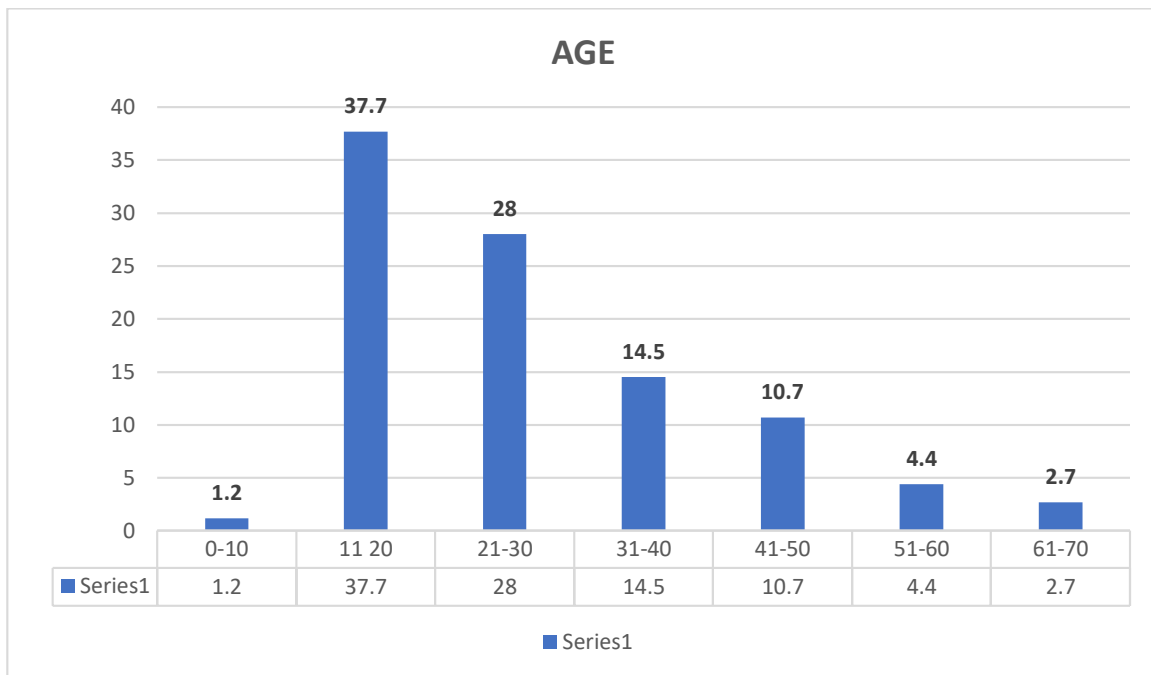
3.5 Data Collection

The data was collected by Google forms, Hard copy of the questionnaire and through telephonic interviews. The collected data were coded, tabulated and analyzed.

The results were of the data collected from people who took Arsenic Album 30c as prophylaxis are represented in the form of tables and Graphs.

TABLE 1: DISTRIBUTION ACCORDING TO AGE

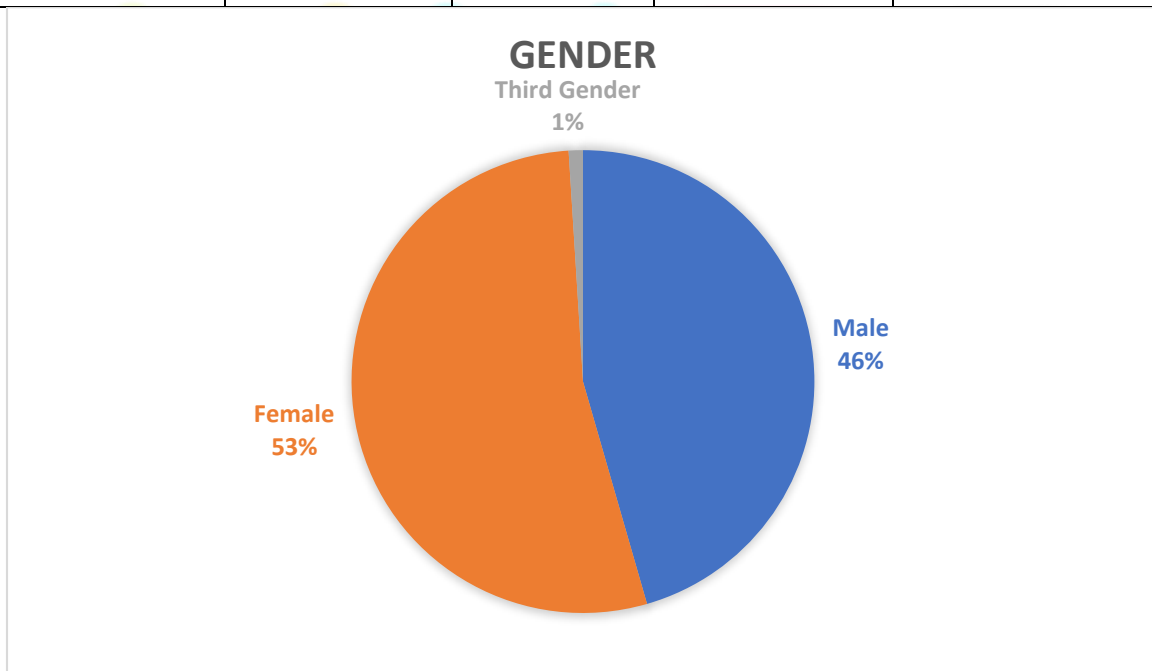
Age				
	Frequency	Percentage	Valid Percent	Cumulative Percent
0-10	9	1.2	1.2	1.2
11-20	292	37.7	37.7	38.8
21-30	217	28.0	28.0	66.8
31-40	112	14.5	14.5	81.3
41-50	83	10.7	10.7	92.0
51-60	34	4.4	4.4	96.4
61-70	21	2.7	2.7	99.1
71-80	7	0.9	0.9	100.0
Total	775	100.0	100.0	



GRAPH 1: DISTRIBUTION ACCORDING TO AGE

TABLE 2: DISTRIBUTION ACCORDING TO GENDER

Gender				
	Frequency	Percent	Valid Percent	Percent
Male	356	45.9	45.9	45.9
Female	418	53.9	53.9	99.9
Third Gender	1	1	1	100.0
Total	775	100.0	100.0	



GRAPH 2: DISTRIBUTION ACCORDING TO GENDER**TABLE 3: DISTRIBUTION ACCORDING TO EDUCATION**

EDUCATION				
	Frequency	Percent	Valid Percent	Percent
	149	19.2	19.2	19.2
Doctorate	26	3.4	3.4	22.6
Graduate	291	37.5	37.5	60.1
High School	23	3.0	3.0	63.1
Higher Secondary	150	19.4	19.4	82.5
Middle	1	A	A	82.6
Other	19	2.5	2.5	85.0
Post Graduate	110	14.2	14.2	99.2
Primary	6	8	8	100.0
Total	775	100.0	100.0	

TABLE 4: DISTRIBUTION ACCORDING TO OCCUPATION

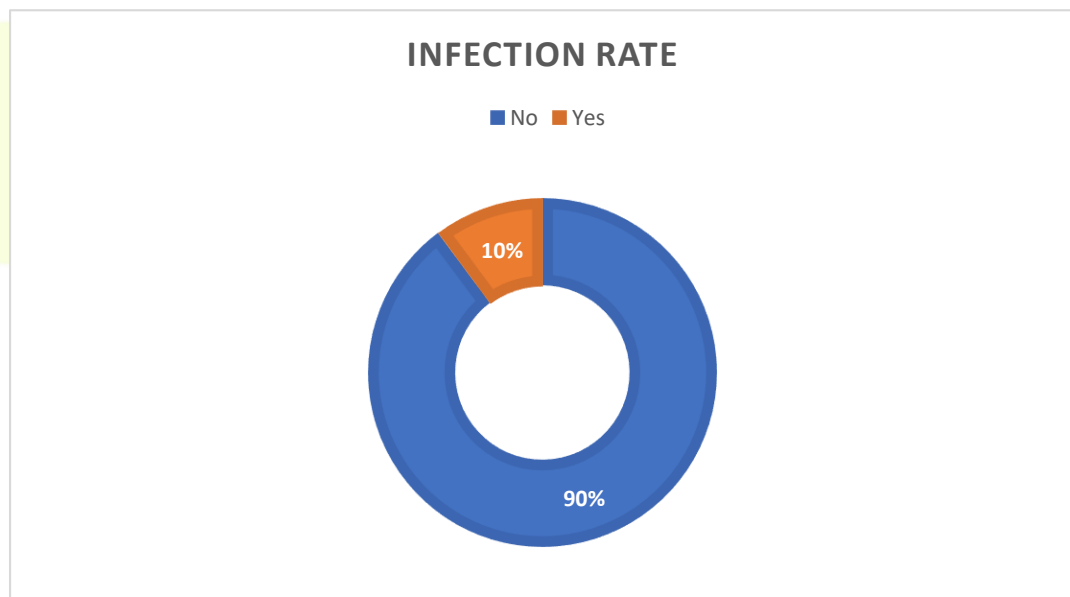
Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Banking	2	.3	.3	.3
	Business	24	3.1	3.1	3.4
	Coolie	1	.1	.1	3.5
	Employed	72	9.3	9.3	12.8
	Farming	3	.4	.4	13.2
	Home maker	59	7.6	7.6	20.8
	Professional	193	24.9	24.9	45.7
	Retired	8	1.0	1.0	46.7
	Social worker	5	.6	.6	47.4
	Student	400	51.6	51.6	99.0
	Unemployed	4	.5	.5	99.5
	Work from home	4	.5	.5	100.0
	Total	775	100.0	100.0	

TABLE 5: DISTRIBUTION ACCORDING TO SOCIO ECONOMIC STATUS

Socio Economic Status				
	Frequency	Percent	Valid	Percent
Lower middle	402	51.9	51.9	51.9
Poor	7	.9	.9	52.8
Rich	7	.9	.9	53.7
Upper middle	359	46.3	46.3	100.0
Total	775	100.0	100.0	

TABLE 6: DISTRIBUTION ACCORDING TO THE INFECTION RATE

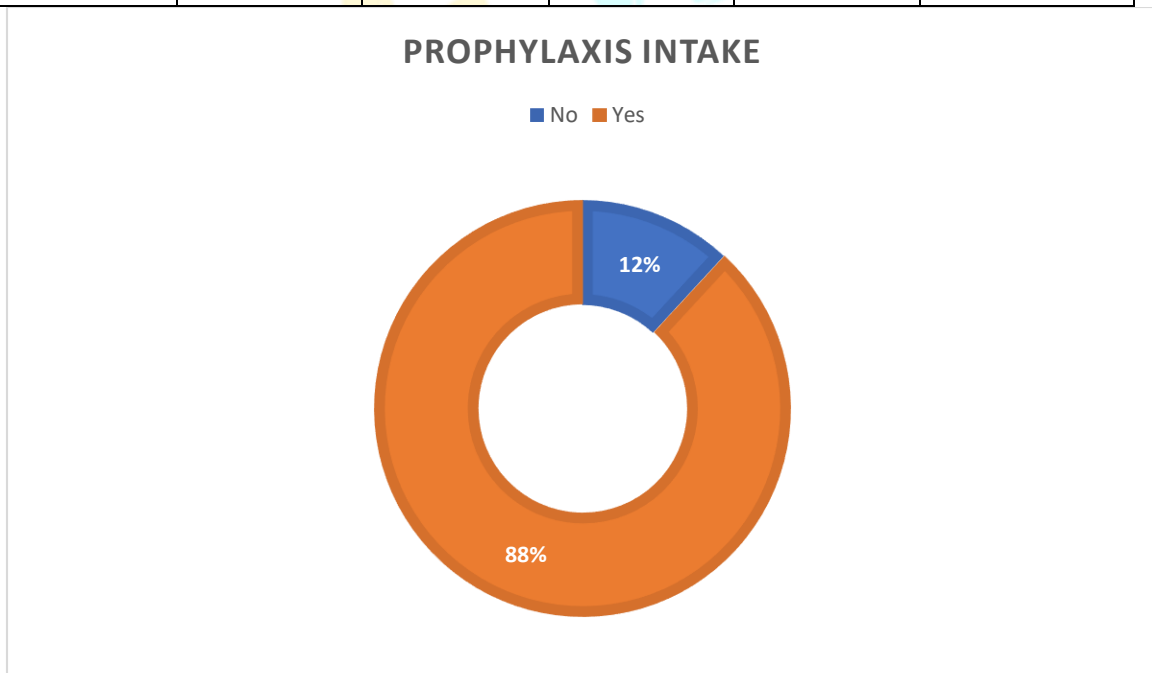
Have you tested positive for Corona Virus Infection?					
Valid		Frequency	Percent	Valid Percent	cumulative Percent
	No	696	89.8	89.8	89.8
	Yes	79	10.2	10.2	100.0
	Total	775	100.0	100.0	



GRAPH 3: DISTRIBUTION ACCORDING TO THE INFECTION RATE

TABLE 7: DISTRIBUTION ACCORDING TO THE PROPHYLAXIS RATE

Did you take Ars Alb 30c prophylaxis?					
Valid		Frequency	Percent	Valid Percent	cumulative Percent
	No	92	11.9	11.9	11.9
	Yes	683	88.1	88.1	100.0
	Total	775	100.0	100.0	



GRAPH 4: DISTRIBUTION ACCORDING TO THE PROPHYLAXIS RATE

TABLE 8: CHI- SQUARE TABLE OF CONTENT

	ARS.ALB YES	ARS.ALB NO
COVID YES	76 (a)	620 (b)
COVID NO	16 (c)	63 (d)

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

$\chi = \text{Chi}$ $O_i = \text{Observed Frequency}$

$E_i = \text{Expected Frequency}$

$$\text{For (a)} \quad \frac{(O_i - E_i)^2}{E_i} = \frac{(76 - 82.6)^2}{82.6} = \frac{(-6.6)^2}{82.6} \\ = 0.530$$

$$\text{For (b)} \quad \frac{(O_i - E_i)^2}{E_i} = \frac{(620 - 613.4)^2}{613.4} = \frac{(43.9569)^2}{613.4} \\ = 0.07$$

$$\text{For (c)} \quad \frac{(O_i - E_i)^2}{E_i} = \frac{(16 - 9.378)^2}{9.378} = \frac{(6.622)^2}{9.378} \\ = 4.675$$

$$\text{For (d)} \quad \frac{(O_i - E_i)^2}{E_i} = \frac{(63 - 69.6)^2}{69.6} = \frac{(0.629)^2}{69.6} \\ = 0.629$$

$$\chi^2 = \sum (a) + (b) + (c) + (d)$$

$$= 0.530 + 0.07 + 4.675 + 0.629$$

$$= 5.904$$

Conclusion:

The study shows that age group 11-20 (37.7%) has the higher responses, the low response group is 71-80 (.9%). Regarding the survey overall response is more from Female i.e 53.9 % and Male response were 45.9%. while considering the education it shows that Graduates group(37.5%) has the highest responses. Regarding the occupation status of patients shows that Students group have given higher responses (51.6%) and least response group is Coolie.(.1%). While considering the social status of patients it shows that Lower middle class (51.9%) has a slight upper edge over Upper middle class (46.3%). The total people who took Homoeopathic prophylaxis were 79.2%. The results of effectiveness of homoeopathic prophylaxis were analysed with Chi-square test. Chi Square Value is found to be 5.904. By finding the degree of freedom (df), the p value is found. P value is 0.015, which is less than 0.05. Using the Chi Square chart¹⁹, level of significance α is noted. α is found to be above 95%. The study results shows that the immune booster Aresenicum album has significantly resulted on prophylaxis of Covid-19 infection.

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