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A STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING COVID-19 VACCINATION AMONG THE AGE GROUP BETWEEN 18-60 YEARS IN SELECTED URBAN AREAS AT TUMKUR WITH A VIEW TO DEVELOP SELF INSTRUCTIONAL MODULE

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ABSTRACT

COVID-19 is an infectious disease caused by corona virus, which caused many deaths in all over the world. Therefore, COVID-19 vaccination is important measure to prevent mortality and morbidity. This study aimed **Objectives:** 1.To assess the knowledge and attitude regarding COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur. 2. To determine the relationship between knowledge and attitude of COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur. 3. To determine the association between the knowledge and attitude regarding COVID-19 vaccination with selected demographic variables. 4.To develop a self-instruction module regarding knowledge and attitude of COVID-19 vaccination and distribute the same to study samples. **Methodology:** The research design of the study was, descriptive design. The population was people living in urban areas at Tumkur. The sample consists of 100 people living in urban areas at Tumkur. Convenient sampling technique was used for the study. The knowledge and attitude were assessed using structured knowledge questionnaires and Likert's scale. The data obtained was analyzed by using descriptive and inferential statistics. **Results:** The study findings revealed that the knowledge of urban people was determined with the mean of 16.28 and with standard deviation 5.567, the mean score percentage was computed and it found to be 54.26. the attitude of urban area people was determined with mean of 68.86 and with standard deviation 17.642, the mean score percentage was computed and it found to be 68.86. The r - value 0.041 which is statistically not significant and hence it can be inferred that there is no significant relationship between knowledge and attitude scores. The chi – square test shown a significant association between knowledge of urban people with their age and source of Information regarding covid-19 vaccination. It also showed the significant association between attitude of urban area people with the source of information. The findings of the study states that there is significant association between knowledge and attitude of urban area people with selected demographic variables.

Keywords: Asses, COVID-19 vaccination, urban area people.

INTRODUCTION

COVID-19 is an acute disease in humans caused by coronavirus, which is characterized mainly by fever and cough and is capable of progressing to severe symptoms and in some cases death. It was originally identified in China in 2019 then became pandemic in 2020. Coronaviruses (CoVs) belong to the family of Coronaviridae, the order Nidovirales and the genus *Coronavirus*. They are large group of viruses that they can cause illnesses ranging from common cold to more serious conditions like severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS). CoVs are enveloped viruses containing a nonsegmental positive-sense, single-stranded ribonucleic acid (RNA). CoVs are categorized into four genera that include α-coronavirus, β-coronavirus, δ-coronavirus and γ-coronavirus.[1]

However, 'SARS-CoV-2' is the 2019 novel corona virus (formally 2019-nCoV), is a new strain that has not previously been identified in humans. 'COVID-19' is the name of the illness that SARS-CoV-2 produced. COVID-19 is contagious disease primarily spread from person to person by respiratory droplets, or by contact with contaminated surfaces. Incubation period of COVID-19 lasts from 2-14 days where in symptoms like fever, cough, chills, muscle pain, loss of taste and smell, nausea, runny nose, shortness of breath appear.

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On December 31, 2019, the World Health Organization (WHO) was notified of several cases of viral pneumonia of unknown origin detected in the Chinese city of Wuhan. The epidemic developed rapidly affecting other parts of China and many other countries around the world in Asia, Europe, North and South America, Australia and Africa.

The coronavirus disease 2019 (COVID-19) has emerged as a global pandemic and was declared as pandemic by the World Health Organization on March 11th, 2020 mainly due to the speed and scale of the transmission of the disease.[2]

Moreover, the disease cases reached more than 100 million with over 2 million deaths by the end of January 2021, and it continues to be a major global challenge that has adverse impacts on all life aspects. Being knowledgeable about the illness and the virus's propagation can help us to develop the best strategy to stop or slow down transmission. Keeping a distance of at least one meter between people, donning a mask, and often washing hands or using an alcohol-based rub can prevent infection in both oneself and other people. Several precautionary measures have been followed by the governments to decrease COVID-19 spread and mitigate its effects.[3] Due to the outbreak of the COVID-19, several countries have invested their knowledge and efforts in the development of vaccines to defeat the coronavirus. The vaccine helps strengthen the immune system, creating long-lasting immunity that can help fight the virus.

However, vaccination is one of the most reliable and significant precautionary measures its role in reducing viral diseases spread has been established for decades. A vaccine is defined as a biological product that protects us against a specific disease. Vaccines usually contain inactive or weakened lethal substances, proteins or toxins. Once these substances enter the body, the immune system in body can recognize the threat and destroy it. The body can also 'remember' a threat and develop an appropriate response if it encounters a threat in future.

All COVID-19 vaccines are being developed aim to produce immunity to SARS-CoV-2 virus by stimulating an immune response to an antigen and they include, Whole virus vaccines, Protein subunit vaccines, Viral vector vaccines, Nucleic acid vaccines.

In Karnataka as of June 10, 2023, total 12,21,68,236 coronavirus vaccines have been administered. As of June 10, 2023 India has administered over 220,68,94,767 doses overall, including first, second and precautionary doses of approved vaccines.More than 12.7 billion doses have been administered,162 shots for every 100 people worldwide.[5][6]

As a part of control measures against COVID-19, vaccines have been launched in India from 16 January 2021, as per the operational guidelines issued by the government of India and disseminated to all States the COVID-19 vaccination is totally voluntary; however, all individuals are encouraged to take vaccination. In India at present for COVID-19 vaccination the doses scheduled by National COVID-19 vaccination programme is as followed;

- Covishield: two doses, an interval of 12-16 weeks (84-112 days)
- Covaxin: two doses at an interval of 4-6 weeks (28-42 days)
- CorBEvax: two doses at an interval of 4 weeks (28 days)
- Covovax: two doses at an interval of 3 weeks (21 Days)
- Sputnik V: two doses at an interval of 3 weeks (21 days)
- ZyCoV-D: two doses at an interval of 4 weeks (28 days)
- Precaution dose: at an interval of 6 months from the date of administration of 2nd dose.[7]

Taking COVID-19 vaccine can prevent people from getting seriously ill, being hospitalized, and dying. Vaccines are safer, reliable way to build protection they build immunity, offer added protection to people who had COVID-19.[8]

NEED FOR THE STUDY

Karnataka confirmed first positive COVID-19 case on March 09, 2020 in Bangalore. 40-year-old software professional, who returned from the US on March 1, tested positive for the virus admitted to the State-run Rajiv Gandhi Institute of Chest Diseases (RGICD).[9]

The first case of the Covid-19 virus in India was detected in Thrissur, Kerala on January 30, 2020. As the cases continued to rise, the government was forced to impose a nationwide lockdown on March 25, 2020.In India so for during this study the coronavirus cases: 206, deaths: 5,33,619 and recovered: 445,06,249.[10]

Moreover, The National population-based serosurvey indicated that 0.73 per cent of adults in India were exposed to COVID-19 infection earlier, amounting to 6.4 million infections in total by the early May 2020.[11] Globally, as of 10 June 2023, there have been **775,552,205** confirmed cases of COVID-19, including **7,050,201** deaths, reported to WHO. As of 10 June 2023, a total of **5.47bn** vaccine doses have been administered. .[4]

COVID-19 has become the first documented pandemic since the 1918 flu pandemic spreading massively all around the globe. The incidence of COVID-19 is highest among those aged 50-70 years and was lowest among those under 10years. The ongoing outbreak of the COVID-19 infection has posed significant threats to international health and the economy.

In India, the 1st wave began in March 2020 and lasted till nearly November 2020, while the 2nd wave began in March 2021 lasting till the end of May 2021 thus, we lagged behind western countries, probably due to a difference in timing of seasons. The 2nd wave led to widespread devastation, with shortage of hospitals, medications and oxygen supply.

Due to lack of control measures to prevent COVID-19 people suffered a lot. Vaccination against COVID-19 was introduced and now it's been available in the market. But the people did not believe in the vaccination initially during first wave of pandemic and later people started to believe. Since prevention is better than cure, it is necessary to take COVID-19 vaccination to protect oneself from COVID-19.

The knowledge and attitude regarding COVID-19 vaccination have been explored primarily among adults in urban domicile but Majority of the studies have adopted online survey methods for the same. However, descriptive offline studies to assess knowledge and attitude among urban areas have not been researched enough. Being a citizen of India and with my very own personal experience of providing health care facilities during pandemic has led me to conclude that greater portion of the population holds a negative view on COVID-19 vaccines due to the side effect that presents with it. The lack of knowledge regarding the vaccine could be a contributing factor towards the negative attitude. Therefore, more research in the field followed by awareness campaigns need to be conducted in the view of educating people about COVID-19 vaccine and encourage positive attitude about the same.

OBJECTIVES:

1. To assess the knowledge and attitude regarding COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur.
2. To determine the relationship between knowledge and attitude of COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur.
3. To determine the association between the knowledge and attitude regarding COVID-19 vaccination with selected demographic variables
4. To develop a self-instruction module regarding knowledge and attitude of COVID-19 vaccination and distribute the same to study samples.

HYPOTHESIS:

- **H_1:** There will be significant relation between the knowledge and attitude of the population aged between 18-60 years regarding COVID19 vaccination with selected demographic variables.
- **H_2:** There will be significant association between the knowledge and attitude of the population aged between 18-60 years regarding COVID-19 vaccination with selected demographic variables.

METHODOLOGY

The research design of the study was non experimental design. The population was people living in urban areas at Tumkur, a descriptive approach research design was used. The sample consists of 100 people living in urban areas at Tumkur. Convenient sampling technique was used for the study. The knowledge and attitude were assessed using structured knowledge questionnaires and Likert's scale. The data obtained was analyzed by using descriptive and inferential statistics.

RESULTS

The study findings revealed that the knowledge of urban people was determined with the mean of 16.28 and with standard deviation 5.567, the mean score percentage was computed and it found to be 54.26. the attitude of urban area people was determined with mean of 68.86 and with standard deviation 17.642, the mean score percentage was computed and it found to be 68.86. The r - value 0.041 which is statistically not significant and hence it can be inferred that there is no significant relationship between knowledge and attitude scores. The chi – square test shown a significant association between knowledge of urban people with their age and source of Information regarding covid-19 vaccination. It also showed the significant association between attitude of urban area people with the source of information. The findings of the study states that there is significant association between knowledge and attitude of urban area people with selected demographic variables.

Table-1: Distribution of Population aged between 18-60 years according to age

Age		Frequency	Percentage
a.	18-28 years	27	27.0
b.	29-32 years	26	26.0
c.	40-50 years	34	34.0
d.	51-60 years	13	13.0
Total		**100**	**100**

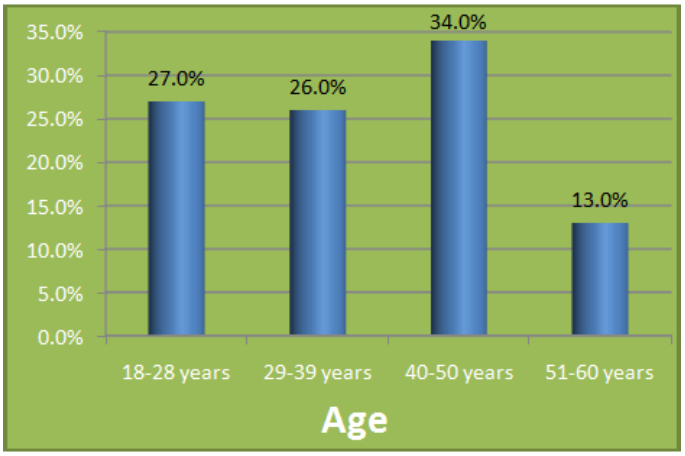

Figure-1: Distribution of subjects by age

The Table-1 and figure-1 depicts that 27% of subjects were in the aged 18-28 years, 26% of subjects were in the age group of 29-39 years, 34% of the subjects were age group of 40-50 years and remaining 13% of them were aged between 51-60 years.

Table-2: Knowledge and attitude scores of populations aged between 18-60 years regarding COVID-19 vaccination

Knowledge aspects	Number of Items	Maximum Score	Mean	Mean %	Median	SD
a. Knowledge on COVID-19	12	12	6.52	54.33	6	2.743
b. Knowledge on COVID-19 vaccination	18	18	9.76	54.22	11	3.528
Overall knowledge	30	30	16.28	54.26	16	5.567
Attitude	20	100	68.86	68.86	70.5	17.642

Table-2 depicts that the maximum mean percentage obtained by the Population aged between 18-60 years is in the aspect of Knowledge on COVID-19 (54.33%), followed by Knowledge on COVID-19 vaccination (54.22%). Therefore, overall knowledge scores of respondents were found to be 16.28 (54.26%) with standard deviation 5.567. The mean attitude score of the population aged between 18-60 years found to be 68.86 (68.86%) with standard deviation of 17.642.

DISCUSSION

The findings of the study have been discussed with reference to the objective and hypothesis,

- **To assess the knowledge and attitude regarding COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur.**

  The finding of the study revealed that overall knowledge score was mean 16.28 and standard deviation 5.56 and mean percentage was 54.26%. 41 subjects had (41%) inadequate knowledge and 38 subjects had (38%) moderate knowledge and 21 subjects had (21%) adequate knowledge This score shows that the knowledge regarding COVID-19 vaccination among urban people aged between 18-60 years living in urban areas was significantly inadequate.

  The finding of the study also revealed that overall attitude score was mean 68.86 and standard deviation 17.642 and mean percentage was 68.86%. Majority (49%) of the Population aged between 18-60 years had favourable attitude, (28%) had moderately favourable attitude and remaining (23%) of them had unfavourable attitude regarding covid-19 vaccination. This score shows that the attitude regarding COVID-19 vaccination among urban people aged between 18-60 years living in urban areas was significantly favourable

- **To determine the relationship between knowledge and attitude of COVID-19 vaccination among the age group between 18-60 years in selected urban areas at Tumkur.**

  This study explains the correlation between Knowledge and attitude scores of populations aged between 18-60 years regarding COVID-19 vaccination. The obtained r value 0.041 between knowledge and attitude scores of populations aged between 18-60 years is not significant and hence it can be inferred that there is no significant relationship between knowledge and attitude scores.

- **To determine the association between the knowledge and attitude regarding COVID-19 vaccination with selected demographic variables.**

  The results of the study show, $\chi 2$ value computed between the knowledge level of Population aged between 18-60 years on covid-19 vaccination and selected demographic variables. Variables such as age and source of Information regarding covid-19 vaccination were significant at 0.05 level. Thus, the hypothesis stated there will be significant association between knowledge level of the Population aged between 18-60 years and selected demographic variables is accepted.

  The results of the study shows that $\chi 2$ value computed between the attitude scores of Populations aged between 18-60 years on covid-19 vaccination and selected demographic variables. Variables such as source of information was significant at 0.05 level Thus the hypothesis stated there will be significant association between attitude level of the Population aged between 18-60 years and selected demographic variables is accepted.

- **To develop a self-instruction module regarding knowledge and attitude of COVID-19 vaccination and distribute the same to study samples.**

  The results of the study show there is significant evidence of inadequate knowledge regarding COVID-19 vaccination among age group between 18-60 years in selected urban areas at Tumkur and favourable attitude for learning about COVID-19. Thus, researcher decided to develop a self-instructional module regarding COVID-19 vaccination among age group between 18-60 years in selected urban areas at Tumkur.

CONCLUSION

It was found that majority of urban area people has moderately inadequate knowledge regarding COVID-19 vaccination. The study findings showed that there was favourable attitude among majority of urban area people regarding COVID-19 vaccination. The finding also reveals that there is significant association between knowledge and attitude regarding COVID-19 vaccination among urban area people with their selected demographic variables. Hence it was concluded that there is significant association between knowledge and attitude of urban area people with selected demographic variables. Correlation between Knowledge and attitude scores of populations aged between 18-60 years regarding COVID-19 vaccination is that the obtained r value 0.041 between knowledge and attitude scores of populations aged between 18-60 years is not significant and hence it can be inferred that there is no significant relationship between knowledge and attitude scores.

RECOMMEDATION:

On the basis of finding of the study the following recommendations were made,

- The replication of present study can be conducted with a large-scale sample to validate and for better generalization of the findings.
- A similar study can be replicated with a randomization in selecting the participants.
- A similar study can be conducted with other methods of study.
- The study can be conducted in different settings.
- An experimental study can be conducted with randomization in selecting the participants.

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