

Knowledge and Attitude towards COVID-19 Vaccine among Medical Students in a Tertiary Care Hospital, Visakhapatnam

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Conflict of interest: Nil

Abstract

Aim and Objectives:

1. Knowledge of the COVID 19 vaccine among medical students in a tertiary care hospital.
2. Attitude towards the COVID 19 vaccine among medical students in a tertiary care hospital.

Methodology:

Study Location: Tertiary care hospital facility in Visakhapatnam.

Study Period: From August to September 2022 will be the study period.

Study Sample Size: 316.

Statistics: Data are gathered using google forms, and the spread document is error-checked. Calculations are made for descriptive numbers like frequency and percentage.

Results: Sociodemographic details about the participants- There were 316 competitors in total. Men make up about 34.5% (n=109) of the members. Approximately 65.5% of the members (n=207) are female. About 40.5% (n=128) of the participants are first-year students, 39.25% (n=124) are second-year students, 14.5% (n=46) are third-year students, and 5.7% (n=18) are fourth-year students.

Conclusions: The majority of medical students' responses to this research show moderate knowledge of and a favorable outlook towards the COVID 19 vaccine. It also demonstrates that medical students are more knowledgeable and have more optimistic dispositions. Our findings can be applied to interventions that promote public health, particularly for medical students. To dispel the medical students' fears and misunderstandings regarding the COVID 19 vaccine, there should be seminars, lectures, and instructional videos that are specifically aimed at them.

Keywords: Knowledge, Attitude, COVID-19 Vaccines, Medical Students.

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Introduction

The common cold, Middle East Respiratory Syndrome Coronavirus (MERS-CoV), and Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) are examples of zoonotic viruses (coronaviruses) known to induce respiratory infections in humans [1]. The new coronavirus outbreak first appeared in Wuhan, China, and was initially diagnosed as pneumonia of unclear origin. Its genome was later found to resemble MERS-CoV and SARS-CoV [1]. The Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) is the new designation for the virus that the World Health Organization (WHO) originally referred to as 2019-nCoV (Novel Coronavirus 2019) [2].

The most effective preventative strategy against serious illness and demise among the range of COVID-19 prevention interventions is immunization [3]. Following the COVID-19 epidemic, the WHO and a number of scientific teams are focusing on the creation of vaccines [4,5]. In comparison to previous vaccines, the development of this COVID-19 vaccine has been greatly accelerated around the world [6,7].

To safeguard their health and the health of their patients from COVID-19, medical students must have a high degree of vaccination acceptance [8,9]. Only when there are high rates of acceptance and coverage is vaccination successful. Healthcare professionals are seen as a key source of information for the general public regarding vaccination [10,11], and medical students who have a favourable attitude towards vaccines may promote widespread vaccination.

The goals of this study were to: [1] gather data on medical students' perceptions of the COVID-19 vaccination; [2] evaluate the influences on students' perceptions; and [3] find indicators of students' readiness to receive a third dose of the COVID-19 vaccine. This article, to the best of our knowledge, is the first

investigation on people's readiness to accept a third dosage of the COVID-19 vaccine.

Aim and Objectives

1. To assess medical students' knowledge of the COVID 19 vaccination in a tertiary care facility.
2. Medical students' opinions on the COVID 19 vaccine in a tertiary care facility.

Materials and Methods

Study population and design: Participants were enrolled in the study after providing a signed informed consent form and receiving IEC permission. Between August and September 2022, medical students (both pre-clinical and clinical) from a Tertiary Health Care and Teaching Institute, NRIIMS, Visakhapatnam, participated in a cross-sectional descriptive questionnaire-based study.

Study Sample Size: 316 individuals.

Male and female undergraduate students in first- through fourth-year departments made up the study's sample.

The semi-structured questionnaire was created following an extensive literature search using Google Forms. There were two parts to it. The participants' demographics, including age, gender, marital status, department, and year of study, were covered in the first section. The second portion evaluated participants' attitudes and perceptions towards COVID-19 vaccines as well as the students' general knowledge of COVID-19 vaccines.

With the help of their respective class representatives, the link for the questionnaire was only distributed to undergraduate medical students individually and through their social media groups (WhatsApp groups). The online survey was developed to prevent the entry of duplicate information. solely medical courses and instructions declaring that the study is solely for medical students were included in

the questionnaires, ensuring exclusivity to just medical students.

Statistical Package for Social Sciences version 25 (SPSS 25.0) software was used for all data coding and analysis. Using frequency counts and percentages, the sociodemographic characteristics, viewpoints, and attitudes of the medical students towards the COVID-19 vaccine were compiled.

Results

A total of 316 students participated in the study. Most of the respondents (97%) were between the ages of 18 and 27 years. One hundred and nine (n=109) (34.5%) students were males and About 65.5%(n=207) of the participants are females.

About 40.5% (n=128) of the participants are first year students, 39.25% (n=124) of the participants are second year students, 14.5% (n=46) of the participants are third year students, 5.7% (n=18) of the participants are fourth year students. 40.5% (n=128) of the students were from the pre-clinical departments (Anatomy, physiology, biochemistry). 39.25% (n=124) of the students were from the para-clinical departments of Pathology, Pharmacology and Microbiology. 20.25%(n=64) of the students were from the clinical departments of ENT, Ophthalmology, SPM, Forensic Medicine, Obstetrics &Gynecology, Pediatrics, Medicine and Surgery. The summary of demographic characteristics is presented in Table 1.

Table 1: Demographic characteristics of participants (n = 316).

Socio-demographic variable	Frequency (n = 316)	Percentage (%)
Age (years)		
18–27	312	98.7
>27	4	1.26
Gender		
Male	109	34.5
Female	207	65.5
Socio-economic Status		
High	48	15.1
Middle	198	62.65
Low	70	22.15
Marital status		
Single	309	97.75
Married	7	7.25
Years of Study		
Pre-clinical	124	39.25
Clinical	64	20.25

Knowledge related to the COVID 19 vaccine

Data on COVID 19 vaccine knowledge and information sources revealed that 60.8% (n=192) of participants believed the COVID 19 vaccine moderately protected us from COVID 19. About 44% (n=139) of the participants believe that two doses of COVID 19 vaccine are sufficient.

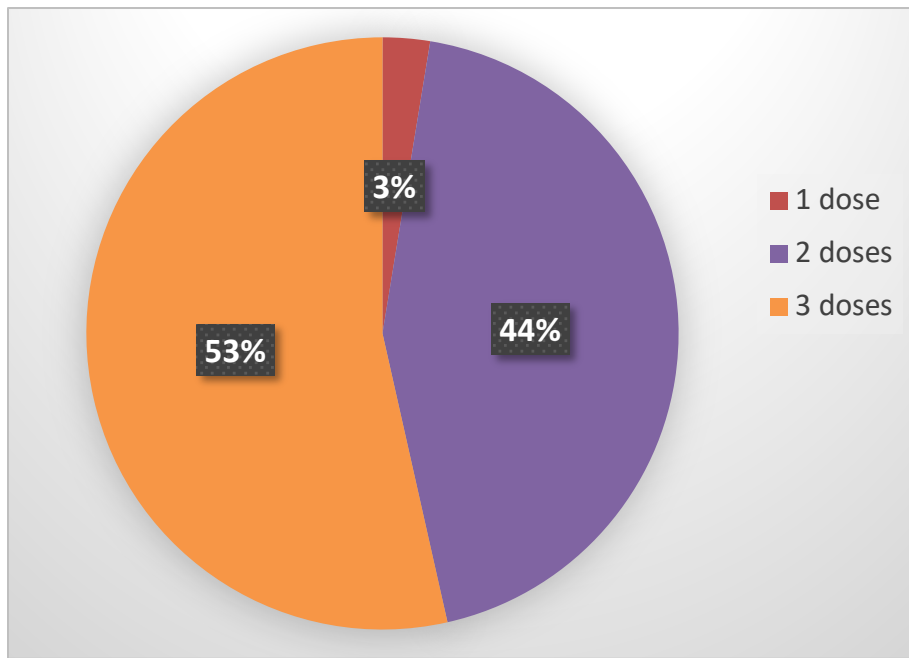


Figure 1

Approximately 18% (n=57) of individuals are unwilling to get the COVID 19 vaccine. Among the 18% (n=57) participants, 17 are unwilling because they believe the vaccination is new and are unsure about the vaccine's negative effects, and 32 are unwilling for other reasons.

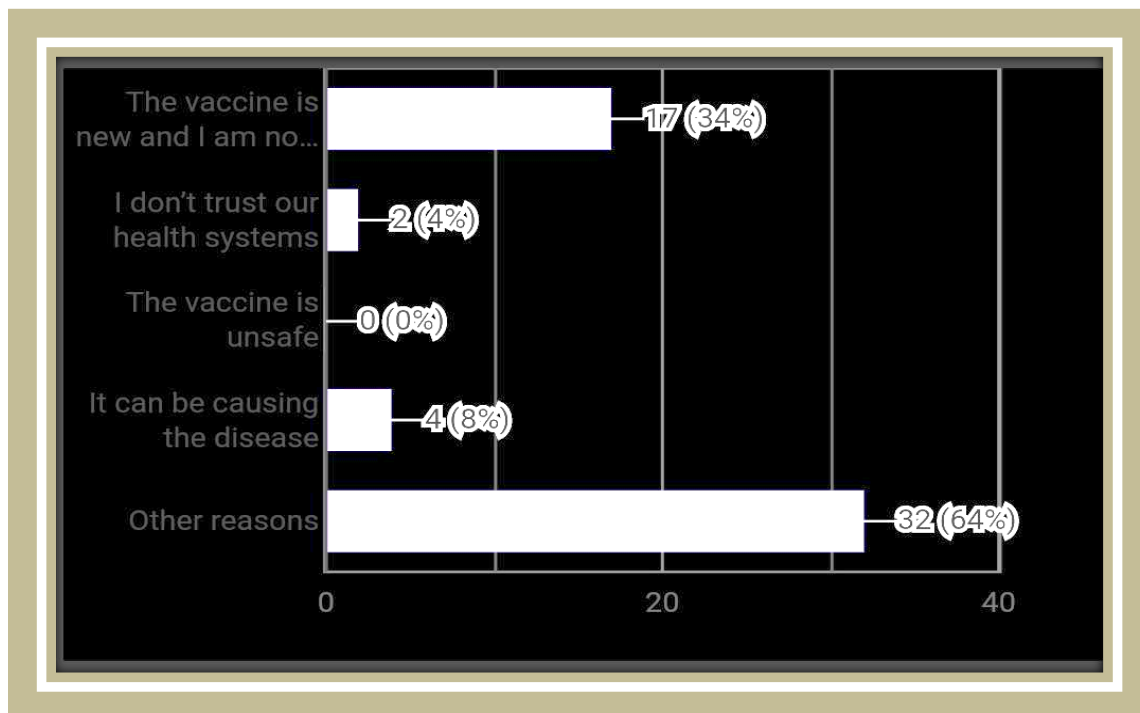


Figure 2

Approximately 5% (n=16) of the participants do not know how long the gap must be between two doses.

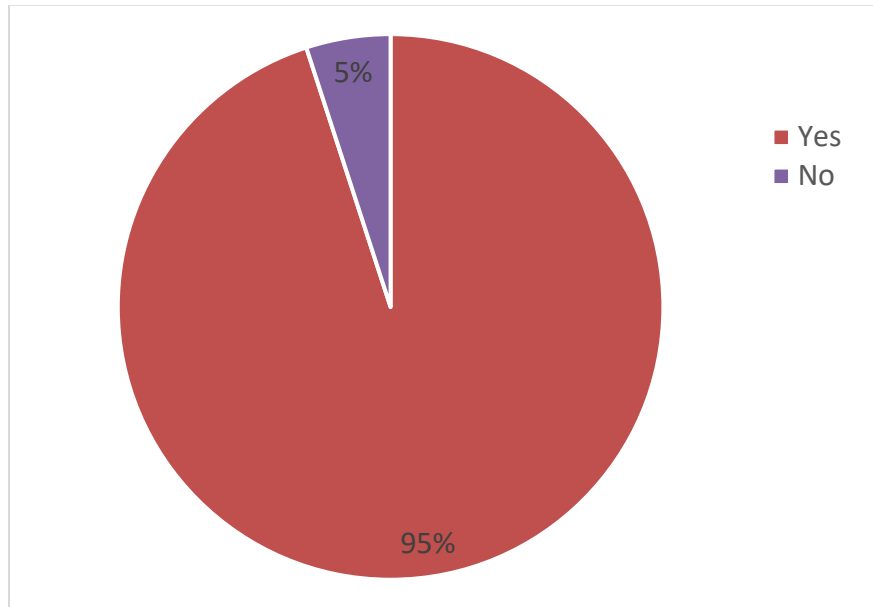


Figure 3

Approximately 8.8% (n=28) of participants are unaware of the vaccination centres in their area.

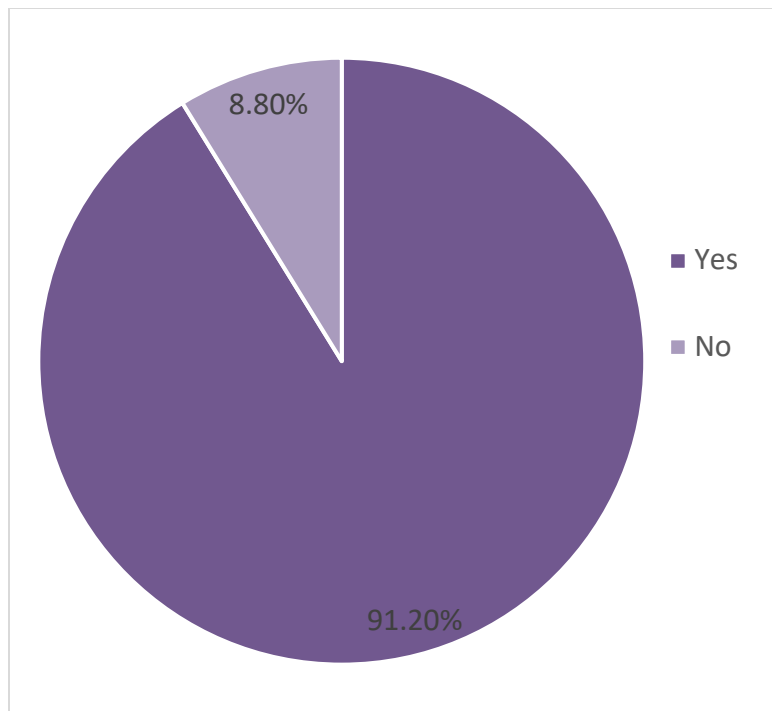


Figure 4

Attitude related to the COVID 19 vaccine

Nearly 88% of participants (n=278) are concerned about the safety of the COVID 19 vaccination.

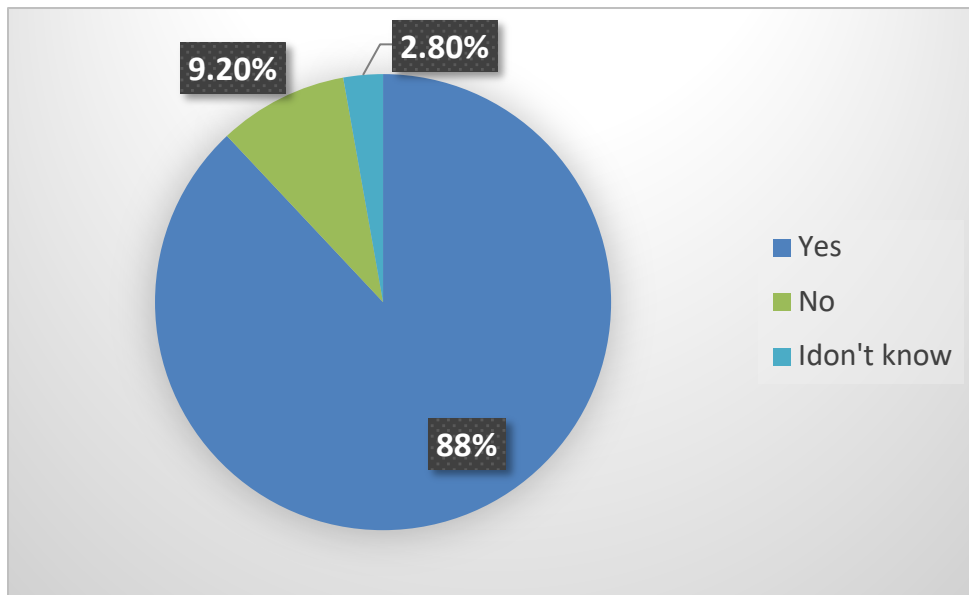


Figure 5

For COVID 19 vaccine, almost 93% (n=294) of individuals favour government services.

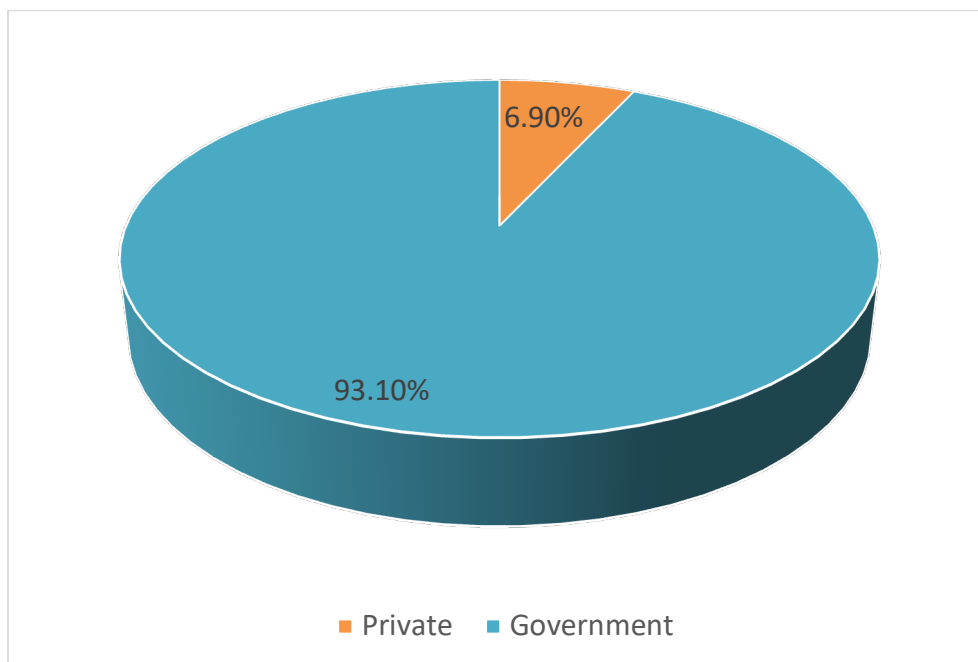


Figure 6

Discussion

The effectiveness of the COVID-19 vaccination programme is dependent on public acceptance of the vaccine. Experts believe that determining vaccination acceptance is critical. By assessing knowledge, attitude, practices, and concerns about the COVID-19 vaccination, we will be able to interpret

vaccine acceptance and/or reluctance. In this questionnaire, the knowledge of people regarding the COVID-19 vaccine was assessed by asking various questions related to its legal mandatoriness, eligibility of different population groups and time span within which the vaccine could provide protective immunity

against the virus. Furthermore, we assessed numerous sources of information that could impact their decision to get vaccinated. Along with this, the attitude of people towards the vaccine was assessed by interpreting their willingness to get vaccinated, extending recommendations to their family and friends and paying for the vaccine.

Conclusions

The aggregate replies of medical students in this survey show a moderate level of awareness and a favourable attitude towards the COVID 19 vaccination. It does, however, suggest that medical students have more knowledge and more favourable views. Our findings can be used to public health promotion interventions, particularly for medical students. Seminars, talks, and informative videos aimed at medical students should be held to dispel their anxieties and misconceptions about the COVID 19 vaccination.

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