

**Knowledge, Attitude, Practice towards COVID-19 in Urban Field Practicing Area of a Tertiary Care Hospital**

**Vijayapura-Karnataka**

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**Abstract**

**Background:** Coronavirus disease (COVID-19) is a new coronavirus named Severe Acute Respiratory Syndrome Coronavirus 2 that is causing the disease (SARS-CoV2). The World Health Organization (WHO) therefore declared COVID-19 a public health emergency of worldwide concern on January 30, 2020, urging all governments to work together to halt the virus's rapid spread. This survey was carried out with the goal of determining the general public's knowledge, attitude, and practice about COVID-19.

**Objective:** To assess the knowledge, attitude, practice, towards Covid-19 among general population in urban area

**Methods:** This was a cross-sectional study carried out in the urban field practicing area of tertiary care hospital Vijayapura, Karnataka in the month of August 2021-March 2022. An empirical sample of about 250 participants was planned using a convenient (non-probability) sampling methodology. Data was collected

using semi-structured questionnaire by interview technique

**Results:** A total of 250 participants were enrolled in the study. People with the age group of less than 45 is 44.8% and more than 45 is 55.2%. In our study knowledge constitutes about 85%, attitude 75% and practice constitutes about 70% and there is a significant association between socio-demographic variables with related to knowledge, practice.

**Conclusion:** During my study, the respondents were aware of knowledge, positive attitude, and prudent actions regarding covid-19.

**Keywords:** Knowledge, Attitude, Practice, Covid-19, Pandemic

**Introduction**

Coronavirus illness (COVID-19) is a disease caused by a newly emerging novel coronavirus known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV2), which began spreading in late 2019 and appeared to be on the verge of becoming a global pandemic in

2020. It's related to the SARS-CoV and the Middle Eastern Respiratory Coronavirus (MERS-CoV), which first arose in East Asia and the Middle East, respectively, in the early 2000s. Previously, this was thought to have come from bats and had never been seen in people.<sup>1,2</sup>

The World Health Organization (WHO) therefore declared COVID-19 a public health emergency of worldwide concern on January 30, 2020, urging all governments to work together to halt the virus's rapid spread.<sup>3</sup> On March 8, 2020, the first incidence of the COVID-19 pandemic was confirmed in the Indian state of Karnataka. Two days later, the state became the first in India to challenge the terms of the Epidemic Diseases Act, 1897, which were enacted to prevent the epidemic from spreading for a year.

The state government of Karnataka issued a circular on March 9, 2020, ordering the closure of kindergartens and primary classrooms in all institutions in the state to avoid the spread of coronavirus. As a precautionary move after reporting its first death by state, the government issued a notification to close all public venues with heavy foot traffic, including as malls, universities and colleges, movie theatres, night clubs, weddings, and conferences.<sup>4</sup> After 2–14 days after exposure, Covid-19 symptoms appear, ranging from asymptomatic moderate symptoms to severe respiratory illness. Fever, cough, and shortness of breath are the most common symptoms. To restrict the transmission of infections, some measures such as social distance, hand washing, and lockdown procedures have been implemented, but this has resulted in panic among the general people who have not been afflicted.<sup>5,6</sup>

Because India is such a diverse country in terms of socioeconomic status, there are disparities in the availability of health resources for its citizens. The WHO (World Health Organization) lauded an immediate

lockout as "tough and prompt," and cluster containment as effective measures to disrupt the chain transmission.<sup>7</sup>

In January 2021, the Indian government approved two COVID-19 vaccines for the Indian population. As a result of the second wave of COVID-19 cases.<sup>8</sup>

The nature of this virus's transmission and prevention techniques has had an impact on people's daily lives, livelihoods, incomes, daily wages, and religious requirements, traditions, and socio-cultural practises around the world. Many investigations on the incidence, aetiology, and clinical aspects of covid-19 have recently been published. To effectively control the epidemic, it is necessary to completely comprehend their knowledge, attitude, and practice (KAP). Only a few studies on KAP have been undertaken. As a result, this study was carried out in order to analyse the general population's knowledge, attitude, and practice based on Covid-19.

**Objectives:** To assess the knowledge, attitude, practice, towards Covid-19 among general population in urban area

## **Materials and Methods**

### **Study design, setting and ethical aspects**

This was a cross-sectional study conducted among people of urban field practice area of Vijayapura, Karnataka, India and it covers the population of 10,000. Verbal consent was obtained from all the participants. Institutional ethical clearance was obtained before the start of the study

### **Sampling method**

This cross-sectional study was conducted among the Urban people of district Vijayapura, from August 2021 to march 2022. An empirical sample of about 250 participants was planned using a convenient (non-probability) sampling methodology. Data was collected

using semi-structured questionnaire by interview technique.

**Statistical analysis**

Data was entered in MS excel and analysed using IBM SPSS v 25 and statistical association was derived using chi-square test.

**Inclusion and exclusion criteria**

Aged 18 years or older, either gender, which could understand the content of the questionnaire, and agree to participate in the study were enrolled in the study. However, the people who did not give consent for participation in the study were excluded

**Study tool**

The questionnaire was divided into four parts including sociodemographic characteristics, knowledge, attitude and practices about COVID-19.

**Results**

**Social and demographic characteristics**

A total of 250 participants completed the questionnaire. People with the age group of less than 45 is 44.8% and more than 45 is 55.2%. Most of them were married 92%. The majority of them 28.4% were illiterate while 18.4%

**Study variables**

The age variable was divided into categories less than 45 and more than 45 years. Education status (Illiterate, primary school, middle school, high school, graduate), marital status (single, married, others), employment (professional, clerical / shopkeeper, skilled, semiskilled, unskilled, unemployed) and health insurance coverage (Aadhar card, BPL/APL Card, senior citizen card, private insurance, disability card, no insurance, more than two insurance). The total score for Knowledge, Attitude, Practice was categorized as binary variable (yes/no) assessing the KAP status about COVID-19 among urban people

and 14.4 % received some education (primary and secondary). Only 17.6% had education of high school and 21.2% had graduation and above. According to employment status 34.4% were unskilled worker and 26% were professional. (Table 1).

Table 1: Distribution of the study participants according to sociodemographic factors (N=250).

| Sn. | Demographic variables | Frequency(N=250) | %    |
|-----|-----------------------|------------------|------|
| 1   | Age                   |                  |      |
|     | Less than 45          | 112              | 44.8 |
|     | More than 45          | 138              | 55.2 |
| 2   | Gender                |                  |      |
|     | Male                  | 142              | 56.8 |
|     | Female                | 108              | 43.2 |
| 3   | Marital status        |                  |      |
|     | Single                | 19               | 7.6  |

|   |                       |     |      |
|---|-----------------------|-----|------|
|   | Married               | 230 | 92   |
|   | Others                | 1   | 0.4  |
| 4 | Education             |     |      |
|   | Illiterate            | 71  | 28.4 |
|   | Primary School        | 46  | 18.4 |
|   | Middle school         | 36  | 14.4 |
|   | High school           | 44  | 17.6 |
|   | Graduate              | 53  | 21.2 |
| 5 | Employment            |     |      |
|   | Professional          | 65  | 26   |
|   | Clerical/Shopkeeper   | 28  | 11.2 |
|   | Skilled               | 2   | 0.8  |
|   | Semi-Skilled          | 27  | 10.8 |
|   | Unskilled             | 86  | 34.4 |
|   | Unemployed            | 42  | 16.8 |
| 6 | Health Insurance      |     |      |
|   | Aadhar card           | 98  | 39.2 |
|   | BPL/APL card          | 52  | 20.8 |
|   | Senior Citizen card   | 9   | 3.6  |
|   | Private Insurance     | 8   | 3.2  |
|   | Disability card       | 2   | 0.8  |
|   | No insurance          | 1   | 0.4  |
|   | More than 2 insurance | 80  | 32   |

Figure: 1 Assessment of the response of knowledge, attitude and practices items about COVID-19

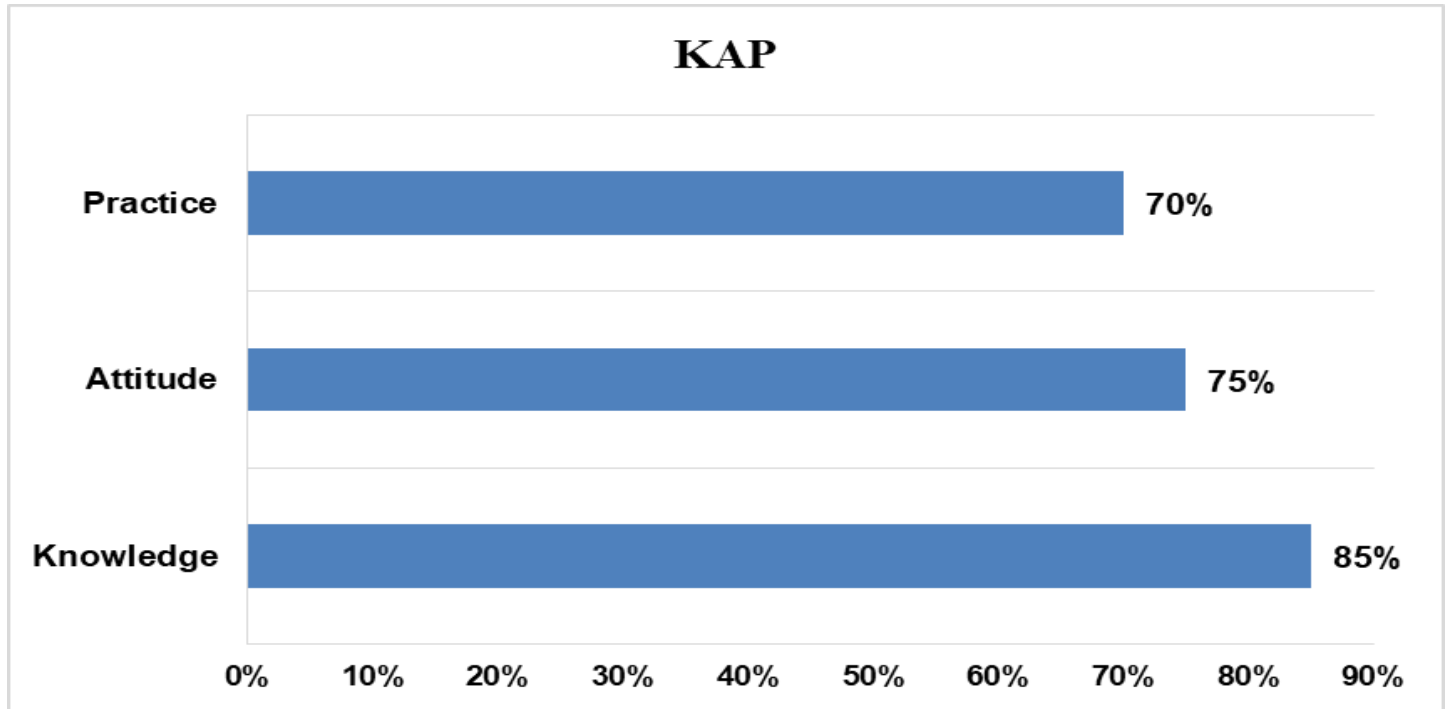


Figure 1: shows the assessment of the response towards KAP, it shows 85% people have good knowledge about covid-19, attitude towards it about 75% and practice constitutes about 70%

Table 2: Knowledge about COVID-19

| Sn. | Questions   | Percentage |
|-----|---|------------|
| 1   | Have you heard about COVID-19   | 88.8       |
| 2   | Do you know about the symptoms of COVID-19  | 81.4       |
| 3   | Did you had any of these symptoms   | 20.8       |
| 4   | Do you know about transmission of disease   | 71.4       |
| 5   | Do you know that proper hand-washing, Wearing masks, and Social distancing can protect COVID19 infection. | 99.4       |
| 6   | Do you know about quarantine  | 63         |
| 7   | Have you heard about the covid-19 vaccine   | 82.8       |
| 8   | did you know about the dose of the vaccine.   | 73.6       |
| 9   | Did you know about the gap between two vaccine  | 60         |
| 10  | Do you think COVID-19 Vaccine is safe   | 67.2       |
| 11  | Do you think the covid-19 vaccine is essential for us   | 76         |
| 12  | can someone take vaccine if they had covid19  | 35.4       |

The knowledge among the study participants regarding COVID-19 is described in Table 2. Majority of them had knowledge about coronavirus among them 81.4% knew about the symptoms of covid-19, and 99.4% knew how to prevent oneself from coronavirus infection and 71.4% knew about the transmission of disease.

Table 3: Attitude towards Covid-19

| Sn. | Questions  | Percentage |
|-----|--|------------|
| 1   | will you take the covid -19 vaccine, if it is available  | 80.8       |
| 2   | Is it possible to reduce the incidence of covid-19 without vaccination   | 23.4       |
| 3   | Will you take covid-19 vaccine even if there is no long term protection  | 46.6       |
| 4   | Will you follow protective measures after taking vaccinations  | 80.8       |
| 5   | do you think that if everyone in the society maintains the preventive measure, the covid-19 pandemic can be eradicated without vaccination | 34.8       |
| 6   | do you think the vaccine should be administered free of charge   | 85         |
| 7   | Would you advise someone take vaccine if they had covid19  | 33.3       |

Table 3 reports the attitude of the study participants regarding COVID-19.80% of the people shows positive attitude towards taking the vaccine and they were willing to follow the protective measures even after being vaccinated.85% of the people reported that the vaccine should be administrated free of charge.

Table 4: Practice about Covid-19

| Sn. | Questions   | Percentage |
|-----|---|------------|
| 1   | Have you taken the covid 19 vaccine   | 92.2       |
| 2   | Did you had any side effects after taking the first dose                    | 38.4       |
| 3   | Have you practiced all the the protective measures against Covid 19         | 78         |
| 4   | Did you had any side effects after taking the second dose.                  | 14.2       |
| 5   | Do you followed the protective measures at the covid-19 vaccination         | 94         |
| 6   | Are you following the protective measures after taking covid-19 vaccination | 52         |
| 7   | Have you been infected with covid 19 infection after vaccination            | 6.6        |

Table 4 shows practice regarding COVID-19 among the study participants. Among this 92.2% of people have taken the Covid-19 vaccine and 94% of the people followed the protective measures at the covid-19 vaccination.

Table 5: Association between knowledge and other socio-demographic variables

| Sn. | Socio economic factors | N=250 | Knowledge |         | Chi-Square value | P value |
|-----|------------------------|-------|-----------|---------|------------------|---------|
|     |                        |       | Good      | Average |                  |         |
| 1   | Age                    |       |           |         |                  |         |
|     | Less than 45           | 112   | 93        | 19      |                  |         |
|     | More than 45           | 138   | 99        | 39      |                  |         |

|   |              |     |     |    |       |          |
|---|--------------|-----|-----|----|-------|----------|
|   |              |     |     |    | 9.08  | 0.0025*  |
| 2 | Gender       |     |     |    |       |          |
|   | Male         | 142 | 102 | 40 | 26.33 | 0.0001*  |
|   | Female       | 108 | 98  | 10 |       |          |
| 3 | Education    |     |     |    |       |          |
|   | School       | 197 | 148 | 49 | 24.79 | 0.0001*  |
|   | Graduate     | 53  | 52  | 1  |       |          |
| 4 | Employment   |     |     |    |       |          |
|   | Professional | 93  | 87  | 6  | 32.28 | 0.00001* |
|   | Skilled work | 115 | 84  | 31 |       |          |
|   | Unemployed   | 42  | 29  | 13 |       |          |

(P value < 0.05 is Significant)

Table 5 shows there is an association between socio-demographic variables and knowledge. Age shows association with knowledge which is (0.0025). Gender, education shows

(0.0001), employment shows association with knowledge which is (0.00001)

Table 6: Association between Practice and other socio-demographic variables

| Sn. | Socioeconomic factors | N=250 | Practice |         | Chi-Square value | P value  |
|-----|-----------------------|-------|----------|---------|------------------|----------|
|     |                       |       | Good     | Average |                  |          |
| 1.  | Age                   |       |          |         |                  |          |
|     | Less than 45          | 112   | 99       | 13      | 56.01            | 0.00001* |
|     | More than 45          | 138   | 82       | 56      |                  |          |
| 2.  | Gender                |       |          |         |                  |          |
|     | Male                  | 142   | 93       | 49      | 5.13             | 0.023*   |
|     | Female                | 108   | 81       | 27      |                  |          |
| 3.  | Education             |       |          |         |                  |          |
|     | School                | 197   | 125      | 72      | 37.80            | 0.00001* |
|     | Graduate              | 53    | 50       | 3       |                  |          |
| 4.  | Employment            |       |          |         |                  |          |
|     | Professional          | 93    | 91       | 2       | 200.48           | 0.00001* |
|     | Skilled work          | 115   | 79       | 36      |                  |          |
|     | Unemployed            | 42    | 5        | 37      |                  |          |

Table 6 shows there is association between socio-demographic variables and practice. Age, employment and education shows significance which is 0.00001 and gender shows 0.023

## **Discussion**

The COVID-19 epidemic has claimed countless lives and has had a global impact on health and economics. This study was carried out during the second wave of the COVID-19 pandemic, when the number of cases was rapidly increasing. The findings show that the participants have an excellent overall understanding of COVID-19, including how the virus is transmitted by infected people's respiratory droplets and the disease's clinical signs.<sup>9</sup>

This study was conducted aiming at measuring the level of knowledge, attitude, and practice of COVID-19 regarding the disease. We had an overwhelmingly positive reaction from 250 people. 88.8% of the participants knew what coronavirus is, and this result is similar to a study where 90% of the respondents knew about the disease.<sup>10</sup>

Every platform explains all routes of transmission and symptoms, as evidenced by our poll, which found that 71.4 percent of respondents were well aware of all types of transmission; this is similar to findings from online surveys conducted in the United Kingdom and the United States which shows 71 percent of the people were well aware of all types of transmission.<sup>11</sup>

Another study which is conducted in India shows cumulative 82.9% of the participants possessed adequate knowledge about COVID-19, which is comparatively lower than our study because our study shows the cumulative knowledge about 85%<sup>1</sup>

A study which is conducted among the students shows 92.4% of students rightly opted about the modes of transmission of COVID-19, but our study population accounts for only 71.4% about the knowledge of modes of transmission which is because the literacy rate in our study is low when compared with them. The mean attitude

of the study population in that study is about 86% which is higher when compared with our study. In our study attitude constitutes about only 75% which is lower when compared with this study, it is because literacy rate is low which in turn leads to poor knowledge and 16.8% of the people in our study is unemployed so this also would have led to poor attitude. Practice in this study constitutes about 86% but our study it constitutes only about 70% which is because knowledge level of our people is low when compared with which also reflects in the practice.<sup>12</sup>

Another study which is being conducted in India shows knowledge towards covid-19 is 80.6% which is lower than our study, it is because literacy level is less when compared to our study.<sup>13</sup>

Another study including the Saudi Arabian general population found that 64.7 percent were willing to take the vaccine<sup>14</sup>. In our investigation, we discovered that 80.8 percent were willing to receive the vaccine. Another study in April 2020 on 911 US adults found that 57.6% were willing to be vaccinated.<sup>15</sup>

In terms of attitudes toward COVID-19, the great majority of research participants reported some of the most prevalent COVID-19 symptoms, with just a small minority reporting no symptoms at all, similar to earlier studies. Which is comparable to our study.<sup>16</sup>

A study which is conducted in Punjab among general population about the covid-19 vaccine about its safety 65.1% were reported positively, but in our study 67.2% reported the same<sup>8</sup>

Overall, people believed and followed the healthcare standards fairly well, especially when it came to preventive measures. The research discovered a link between knowledge, attitude, and practice. Similar findings were seen in our study, where socio-



demographic characteristics were found to have a favourable relationship with knowledge.<sup>17,18</sup>

**Limitation:** As it is a cross-sectional study, we couldn't follow up the participant.

### Conclusion and Recommendation

The current study was able to provide a comprehensive overview of urban people's knowledge, attitudes, and practices about COVID-19 in Vijayapura, Karnataka. During the pandemic, our survey found that respondents had adequate knowledge, a positive attitude, and prudent actions about COVID 19. Addressing public concerns, promoting understanding of COVID-19 vaccination as a disease-control tool, addressing conspiracy theories, and lowering vaccine hesitation are all critical steps in preventing additional COVID-19-related public health worsening.

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