

A study to assess the knowledge regarding post covid complications among post covid client selected community area at Puducherry.

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Abstract: The COVID-19 pandemic has had a lasting impact on health, with many individuals experiencing complications that persist well beyond the acute phase of infection. A cross sectional descriptive research design and total of 100 post COVID clients were selected by convenient sampling technique. The data was collected by using structured knowledge questionnaire. The study results revealed that the most of them, (50%) had moderately adequate level of knowledge, (39%) had adequate level of knowledge and (11%) had inadequate level of knowledge. The study concluded that while half of the participants (50%) demonstrated a moderately adequate understanding of post-COVID complications, significant gaps remain, with 11% showing inadequate knowledge. These findings underscore the importance of community-level education programs to improve awareness and support post-COVID health management.

Keywords: Post COVID Client, Knowledge, Puducherry.

1. INTRODUCTION:

The COVID-19 pandemic has resulted in millions of cases worldwide; with many individuals continuing to experience symptoms long after the initial infection period has passed. These prolonged effects, known as post-COVID syndrome or long COVID, have been recognized as a significant public health challenge by healthcare authorities globally, including the World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC). The syndrome encompasses a wide range of symptoms that can affect various organ systems, resulting in physical, cognitive, and psychological difficulties among affected individuals. ⁽¹⁾

Post-COVID complications include both well-defined issues, such as pulmonary fibrosis, and less understood symptoms, such as persistent fatigue, cognitive impairments, and anxiety. These symptoms are reported in patients of all ages and in cases ranging from mild to severe infections. Despite recovery from the acute phase of COVID-19, approximately 10-20% of individuals experience these lingering symptoms, with some studies reporting even higher rates among those hospitalized during the acute phase of infection. ⁽²⁾

Recognizing the significance of post-COVID complications, healthcare institutions have prioritized research on long COVID, with a focus on prevalence, underlying mechanisms, and effective management strategies. A study published in *BMJ* emphasized that long COVID affects not only the respiratory system but can also lead to neurocognitive and musculoskeletal issues. This has led to an increasing focus on multidisciplinary approaches for treating post-COVID conditions, which include both physical and mental health support. ⁽³⁾

Knowledge about post-COVID complications among individuals in the community is critical to enable self-care and timely access to medical support. A study conducted in India highlighted the need for community education

on the prolonged effects of COVID-19, particularly in areas with limited healthcare resources. Increasing awareness can help individuals recognize symptoms early and seek appropriate care, reducing the risk of severe complications. ⁽⁴⁾

Community-level education on post-COVID conditions is essential for addressing the gaps in knowledge and improving health outcomes. The CDC has noted that public awareness and access to information on post-COVID complications play a critical role in reducing the stigma and providing support for affected individuals. In regions like Puducherry, where healthcare resources might be stretched, educating communities about post-COVID symptoms and recovery options could lead to better health-seeking behaviours. ⁽⁵⁾

Evidence also suggests that vaccination may reduce the risk of long COVID by decreasing the severity of the initial infection. Data from *BMJ* showed that vaccinated individuals who experienced breakthrough infections reported fewer long-term symptoms, such as fatigue and respiratory issues, compared to unvaccinated individuals. This highlights the importance of public health campaigns advocating for vaccination, particularly in communities still dealing with the effects of the pandemic. ⁽⁶⁾

Despite the growing awareness, there remain significant knowledge gaps in post-COVID care, especially in community-level support systems. WHO's initiative for long COVID emphasizes the need for accessible and community-based health services to support individuals experiencing persistent symptoms. Furthermore, integrated rehabilitation services can mitigate the long-term health impact of COVID-19, allowing individuals to reintegrate into their daily lives more effectively. ⁽⁷⁾

This study in Puducherry aims to assess community-level knowledge about post-COVID complications among individuals recovering from COVID-19. By identifying knowledge gaps and awareness levels, healthcare providers can implement targeted educational interventions and facilitate accessible rehabilitation services. This approach not only aligns with the WHO's goal of achieving universal health coverage but also helps to ensure that post-COVID individuals in Puducherry receive the necessary support for a full and healthy recovery.

2. MATERIALS & METHODS:

Design: Cross sectional descriptive research design was adapted for the present study.

Sample Size: 100 post COVID clients were selected for the study.

Sampling Technique: Convenient sampling technique was used to select the samples.

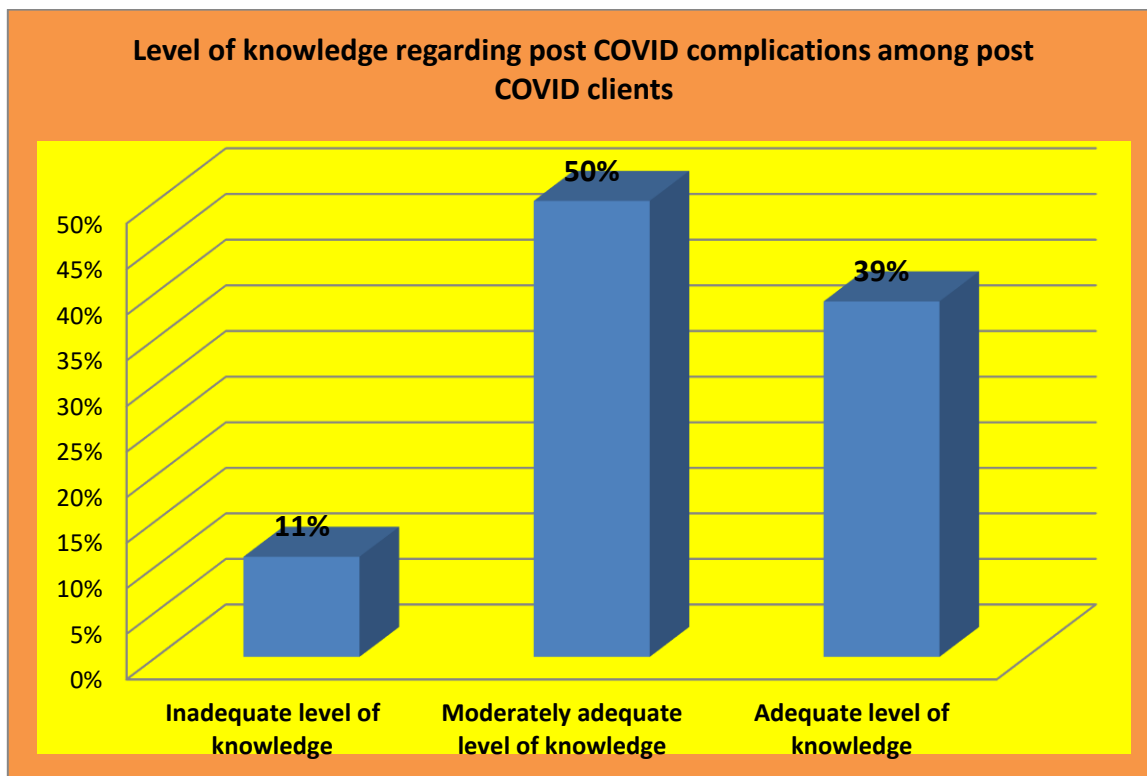
Data collection Procedure: Formal written permission has been obtained from the institutional ethical committee and also setting permission from the selected community area at Puducherry. A convenient sampling technique was used to select the post COVID clients. The informed consent will be obtained from the post COVID clients and the level of knowledge regarding post COVID complications will be assessed by using structured knowledge questionnaire . The collected data were computerized and analyzed using SPSS version 25. The data was analyzed using descriptive statistics (distribution, mean, standard deviation) and inferential statistics (chi-square value test).

3. RESULTS:

Percentage distribution of demographic variables among post COVID clients. The majority of post-COVID patients are aged 30-49, with the highest percentage in the 30-39 range (30%). More male patients (55%) than female patients (45%) report post-COVID symptoms. Most patients have at least secondary education, with 35% having an undergraduate degree. A large portion of the patients is employed, with private-sector workers comprising 40% of the sample. Most patients live in urban areas (60%), likely due to better access to healthcare services. The majority of patients (40%) had COVID-19 for 1-2 months, with a significant portion experiencing prolonged illness.

Percentage distribution of knowledge regarding post COVID complications among post COVID clients, most of them, (50%) had moderately adequate level of knowledge, (39%) had adequate level of knowledge and (11%) had inadequate level of knowledge. (**Figure 1**)

Figure 1: Percentage distribution of level of knowledge regarding post COVID complications among post COVID clients.



The mean score of knowledge regarding post COVID complications among post COVID clients was 19.21 ± 4.568 . The median was 17 with minimum score of 8 and maximum score of 24 (Table 1)

Table 1: Assessment of knowledge regarding post COVID complications among post COVID clients. (N = 100)

Knowledge regarding post COVID complications	SCORE
Minimum score	8
Maximum score	24
Median	17
Mean	19.21
Standard deviation	4.568

The demographic variable age in years ($\chi^2=38.09, p=0.0001$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.001$ level. The demographic variable education ($\chi^2=32.83, p=0.0001$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.001$ level. The demographic variable Duration of COVID Illness (Months) ($\chi^2=14.004, p=0.030$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.05$ level.

4. DISCUSSION:

A Cross sectional descriptive research design was used to this study. Total of 100 post COVID clients were selected by convenient sampling technique. The first objective was to assess the level of knowledge regarding post COVID complications among post COVID clients. Most of them, (50%) had moderately adequate level of knowledge, (39%) had adequate level of knowledge and (11%) had inadequate level of knowledge. The present study was supported by the previous study of Rasika Vaidya in (2021), conducted study on “Evidence regarding the spectrum of post-

COVID-19 illness and management". Non experimental descriptive survey design was used in this study. Nonprobability convenient sampling technique was used to collect 100 samples. Majority of the samples 51 % of them were having very good level of knowledge score, 21% of them had good level of knowledge score, 16 % of them had excellent level of knowledge score and 11% had average level of knowledge score, only 1 % had poor level of knowledge score respectively.⁽⁸⁾

The second objective is to find the Association of level of knowledge regarding post COVID complications among post COVID clients with selected demographic variables. The study findings revealed that the demographic variable age in years ($\chi^2=38.09$, $p=0.0001$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.001$ level. The demographic variable education ($\chi^2=32.83$, $p=0.0001$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.001$ level. The demographic variable Duration of COVID Illness (Months) ($\chi^2=14.004$, $p=0.030$) had statistically significant association with level of Knowledge regarding post COVID complications at $p<0.05$ level. The present study was supported by the previous study of Ahmed,(2021) have conducted a This study examines how demographic variables such as age, education, occupation, and socioeconomic status relate to knowledge of COVID-19 complications and associated health behaviors. The findings suggest that younger age groups, those with higher education, and individuals employed in health-related sectors tend to have higher awareness and knowledge of COVID-19 complications. The article also discusses how health behavior, including seeking medical information and preventive practices, varies across demographic subgroups, emphasizing the importance of tailored health education efforts.⁽⁹⁾

5. CONCLUSION:

The study concluded that the most of them had moderately adequate level of knowledge regarding post COVID complications. Develop targeted health education programs focusing on post-COVID complications, especially in areas with lower knowledge levels. These programs should cover common complications, symptom management, and the importance of monitoring long-term health post-COVID.

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