

Assess the Knowledge and Perception on Post Covid Syndrome Among Covid Affected Adults in a View to Prepare Information Booklet in Selected Community at Kanyakumari District

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Abstract: Post-COVID syndrome comprises a range of symptoms, including tiredness, dyspnea, fatigue, brain fog, autonomic dysfunction, headache, loss of smell or taste, cough, depression, low-grade fever, palpitations, dizziness, muscle pain, and joint pain, typically appearing 2 to 6 weeks after COVID-19 infection. Approximately 30% of COVID-19 survivors experience these symptoms, for which there is no specific treatment. Prevention is best achieved through vaccination and healthy lifestyle practices, such as frequent hand washing, maintaining a healthy weight, eating more vegetables, engaging in mild exercise, avoiding alcohol, using telemedicine for follow-ups, and practicing yoga or meditation to manage comorbidities like hypertension and diabetes. Warning signs such as high fever, low oxygen saturation, chest pain, and dizziness should not be ignored.

This study employed a descriptive quantitative approach, utilizing random sampling to assess the knowledge and perception of post-COVID syndrome among participants, and to explore associations with demographic and clinical variables. The findings revealed that 51% had moderately adequate knowledge, 35% had inadequate knowledge, and 14% had adequate knowledge. In terms of perception, 48% of participants had high perception, 22% very high, 18% medium, and 12% low. Significant associations were found between knowledge and variables such as age, gender, family type, place of living, education, and monthly income. Similar associations were found between perception and factors like age, family type, place of living, and education. Clinical factors such as vaccination status and treatment history also influenced knowledge and perception levels.

The study suggests further research with larger samples and longitudinal designs to evaluate the effectiveness of informational booklets on post-COVID syndrome.

Key words- Knowledge, Perception, Post-COVID Syndrome, COVID-affected adults, Information booklet

I. INTRODUCTION

COVID-19, the deadly SARS-CoV-2 virus was declared as pandemic by World Health Organization on March 2020. It created an impression in this era by killing cores of people all over the world. The epidemic evolution in India is quite complex due to regional in homogeneity. Even though its spread has been acutely halted using various emergent vaccines, it's still visible among the public's. Covid manifestations varied from mild to moderate to severe according to its virulence in the host, immunity of the affected individuals or due to co morbidity. Evidence proves that covid 19 direct the affected individual to another long -term effects which may cause serious complications even though the initial disease has been treated using quarantine or hospitalization.¹

Post Covid Syndrome is considered as unique disease as that as Covid infection because of its various health consequences. It is considered as syndrome characterized by the persistence of clinical symptoms beyond four weeks after being recovered from Covid-19. In " Long covid", most of the patients were suffering from tiredness, headache, persistent loss of smell or taste, cough, depression, low grade fever, palpitations, dizziness, muscle pain, joint pain, brain fogginess and dispend. The manifestations may differ from individual to individual and persistence of symptoms also varies.²

According to Times of India (2020), nearly 4 core people in India experienced fatigue, respiratory problems or brain fog after recovering from Covid infections. According to Global burden of disease (2021), incidence from 145 countries identified nearly 144.7 million people affected with Post Covid Syndrome with at least three symptoms.

85% of hospitalized patients developed Post covid syndrome of which 17.5-72% had complaints of fatigue. 10-40% of them had dispend, nearly 11% of them had loss of taste. Research proved that patients with Post Covid Syndrome had already preexisting symptoms and one third of them developed Post Covid Syndrome. Approximately 5% to 8 % of patients developed hypoxia bilateral lung infiltrates, decreased lung compliance.³

Covid 19 has been a challenge to the health care organization even though we are accommodating in a scientific era. Vaccines had drastically reduced the incidence of Covid infection, yet those acquired the disease has an tremendous ill effect. To compensate that various post Covid clinic has been opened in the country to combat the syndromes developed after Covid recovery.⁴

OBJECTIVES

- To assess the knowledge and perception on Post Covid Syndrome among Covid affected adults.
- To assess the correlation between knowledge and perception on Post Covid Syndrome among Covid affected adults.
- To prepare an information booklet regarding post covid syndrome.

HYPOTHESIS

H₁: There was a significant relationship between the knowledge and perception of Post Covid Syndrome among Covid affected adults with the selected demographic variables.

METHODOLOGY

Research Design:

The research design used for this study was a descriptive research design aimed at assessing the knowledge and perception of Post-COVID Syndrome among COVID-affected adults.

Setting of the Study:

The study was conducted in Munchirai village, Kanyakumari District, among adults aged 40-59 years who had experienced at least one episode of COVID-19.

Variables:

Dependent Variable: Knowledge and perception of Post-COVID Syndrome among COVID-affected adults.

Extraneous Variables: Socio-demographic variables such as age, gender, religion, family type, place of living, education, occupation, and clinical variables such as history of vaccination, treatment, and symptom severity.

Population:

The population for this study consisted of all adults in Munchirai village who had been affected by COVID-19 and were experiencing Post-COVID Syndrome.

Sample:

The sample consisted of COVID-affected adults aged 40-59 years from Munchirai village, Kanyakumari District, who met the inclusion criteria.

Sample Size:

100 adults from Munchirai village participated in the study.

Sampling Technique:

Non-probability convenient sampling technique was used to select 100 adults with Post-COVID symptoms from 10 areas of Munchirai village.

Criteria for Sample Selection:

Inclusion Criteria:

- Adults aged 40-59 years.
- Had at least one episode of COVID-19.
- Able to understand Tamil and English.
- Willing to participate in the study.

Exclusion Criteria:

- Critically ill adults.
- Adults with recent fever history.
- Healthcare professionals.
- Uncooperative individuals.
- Adults with psychiatric conditions.

Development of Data Collection Tools:

- Section A: Socio-demographic and clinical variables including age, gender, religion, family type, education, occupation, history of COVID vaccination, symptoms, and severity.
- Section B: Structured knowledge questionnaire with 20 items to assess knowledge about Post-COVID Syndrome.
- Section C: Perception scale on Post-COVID Syndrome using a 5-point Likert scale.

Reliability:

The reliability of the tool was tested using the test-retest method, with reliability coefficients of $r=0.81$

for knowledge and $r=0.93$ for perception, indicating strong reliability.

Validity:

The tool was validated by 7 experts in relevant fields, and their feedback was incorporated into the final version.

Pilot Study:

A pilot study was conducted in Kunnathoor village, Kanyakumari District, to test the feasibility of the research process. The findings were positive, and the procedure was deemed suitable for the main study.

Data Collection Procedure:

Phase1

Before starting the study, formal permission was obtained from the institutional ethical committee and chairman of Munchirai town panchayat. The data collection procedure was carried out for a period of 1 month in the selected community at Kanyakumari district. The data were collected from Covid-19 affected between 40-59 years regarding knowledge and perception on Post Covid Syndrome. At first, rapport was established with the subjects and the purpose of the study was explained to them.

Phase2

Verbal and written consent was obtained from the participants and provided assurance, that all the data would be kept under confidential and used only for study purpose.

Phase3

After obtaining consent from the participants, Socio demographic variables and clinical variables were collected by using structured interview technique. Structured knowledge questionnaire and 5-point Likert scale were used to assess the knowledge and perception on Post Covid Syndrome among Covid-19 affected adults.

Plan for Data Analysis:

Descriptive Statistics:

- Frequency and percentage distribution of socio-demographic and clinical variables.
- Frequency and percentage distribution of knowledge and perception levels.

Inferential Statistics:

- Chi-square test was used to analyze the association between knowledge, perception, and selected variables.

RESULTS

Table 1: Data pertaining to frequency and percentage distribution of demographic variables regarding Post Covid Syndrome among Covid affected adults

(N=100)

S.No	Socio Demographic variables	Frequency (f)	Percentage (%)
1.	Age		
	a) 40-45years	28	28
	b) 46-50years	26	26
	c) 51-55years	20	20
	d) 56-59years	26	26
2.	Gender		
	a) Male	42	42
	b) Female	58	58
3.	Religion		
	a) Hindu	54	54
	b) Christian	38	38
	c) Muslim	8	8
	d) Others	0	0
4.	Type of family		
	a) Nuclear Family	60	60
	b) Single Parent Family	25	25
	c) Joint Family	15	15
	d) Extended family	0	0

5.	Marital status a) Married b) Un married c) Divorced d) Widowed	88 4 3 5	88 4 3 5
6.	Place of living a) Rural b) Urban	68 32	68 32
7.	Educational status a) Post graduate b) Graduate c) School education d) Uneducated	18 22 18 42	18 22 18 42
8.	Occupation a) Government employee b) Private employee c) Self -employee d) Coolie worker	12 22 20 46	12 22 20 46
9.	Monthly income a) Rs.123,322 b) Rs.61,663-123,321 c) Rs.46,129-61,662 d) Rs.30,831-46,128 e) Rs.18,497-30,830 g) Rs 6175-18,496 g) <6174	0 12 10 10 23 32 13	0 12 10 10 23 32 13

Above table presents the frequency and percentage distribution of socio-demographic variables. The majority of participants (28%) were aged 40-45 years, 58% were female, and 54% were Hindu. Most participants (60%) belonged to nuclear families, and

88% were married. A majority (68%) lived in rural areas, 42% were uneducated, and 46% worked as daily laborers. Regarding income, 32% had a monthly family income between Rs. 6,175 and Rs. 18,496.

Table 2: Data pertaining to frequency and percentage distribution of clinical variables regarding Post Covid Syndrome among Covid affected adults

(N=100)

S.No	Clinical variables	Frequency (f)	Percentage (%)
1.	Body mass index a) underweight < (18.5) kg/m ² b) normal range (25.0-29.9) kg/m ² c) overweight (25.0-29.9) kg/m ² d) obese. (30) kg/m ²	17 57 22 4	17 57 22 4
2.	History of covid vaccination a) Yes b) No	100 0	100 0
3.	If yes number of doses obtained a) 1 st dose b) 2 nd dose c) Booster dose	35 47 18	35 47 18
4.	Treatment taken for COVID-19 symptoms a) home quarantine b) vaccinated c) Hospitalized	45 35 20	45 35 20

5.	Type of covid vaccination obtained a) COVID shield b) Co-vaccine c) Nova Vax d) Sputnik	65 35 0 0	65 35 0 0
6.	Hospitalized for post covid syndrome a) Yes b) No	45 55	45 55
7.	Duration of post covid symptoms a) <1 week b) 2 weeks c) 3 weeks d) more than a month	36 25 26 13	36 25 26 13
8.	Presence of following symptoms a month after covid 19 recovery a) Fatigue b) Shortness of breath c) Cough d) Trouble speaking e) Muscle aches d) Loss of smell or taste	23 32 22 6 6 11	23 32 22 6 6 11
9.	Onset of symptoms after covid recovery a) After one week b) After two months c) After three months d) Four month and above	48 27 19 6	48 27 19 6
10.	Level of severity of symptoms ranging in a scale of (0-10) a) Mild (0-3) b) Moderate (4-6) c) Severe (7-10)	45 44 11	45 44 11
11.	History of any Co-morbidity a) Hypertension b) Coronary artery disease c) Diabetes mellitus d) Thyroid e) Rheumatoid arthritis f) Renal failure g) Chronic obstructive pulmonary disease h) Obesity i) Others	22 16 20 7 7 5 14 4 5	22 16 20 7 7 5 14 4 5
12.	Initial symptom severity a) Asymptomatic b) Mild to moderate c) Severity to very severe	24 60 16	24 60 16

Table 2 presents the frequency and percentage distribution of clinical variables. A majority (57%) had a normal BMI, and all participants (100%) received COVID vaccination, with 47% having received two doses. Regarding treatment, 45% underwent home quarantine. Most participants (65%) received Covishield, and 55% were not hospitalized.

Post-COVID symptoms lasted less than a week for 36%, with 32% experiencing shortness of breath. The onset of post-COVID symptoms occurred after one week for 48%, with 45% reporting mild symptom severity. Initial symptom severity was mild to moderate for 60%, and 22% had a history of hypertension.

Table 3: Data pertaining to frequency and percentage distribution on level of knowledge regarding Post Covid Syndrome among Covid 19 affected adults.

N=100

S. No	Level of knowledge	Scoring	Frequency(f)	Percentage (%)
1.	Adequate knowledge	15-20	14	14

2.	Moderately adequate knowledge	8-14	51	51
3.	Inadequate knowledge	0-7	35	35

Table 3 shows the frequency and percentage distribution of the level of knowledge regarding Post-COVID Syndrome among COVID-affected adults. It reveals that 51% of the samples had moderately

adequate knowledge, 35% had inadequate knowledge, and 14% had adequate knowledge regarding Post-COVID Syndrome.

Table 4: Data pertaining to frequency and percentage distribution on level of perception regarding post covid syndrome among covid affected adults.

(N=100)

S. No	Level of perception	Scoring	Frequency(f)	Percentage (%)
1.	Low	20-40	12	12
2.	Medium	41-60	18	18
3.	High	61-80	48	48
4.	Very High	81-100	22	22

Table 4 shows the frequency and percentage distribution of the level of perception regarding Post-COVID Syndrome among COVID-affected adults. It

reveals that 48% of the samples had a high perception, 22% had a very high perception, 18% had a medium perception, and 12% had a low perception.

Table 5: Correlation between knowledge and perception of post covid syndrome among covid affected adults

N=100

S. No	Variable	Mean Score	R-value	P value
1.	Knowledge	11.12	0.82	0.001*(0.321)
2.	Perception	66.00		

*significant at 0.001 level of significance

Table 5 revealed a correlation between knowledge and perception regarding Post-COVID Syndrome among COVID-affected adults. The mean knowledge score was 11.12, and the mean perception score was 66. The coefficient of correlation between knowledge and perception was 0.82, indicating a strong positive relationship, with a significant correlation found at ($p < 0.001$). This demonstrates that as knowledge increases, perception also tends to increase.

CONCLUSION

The study concluded that the information booklet on Post-COVID Syndrome is an effective non-pharmacologic intervention that can be independently implemented in nursing. It provided valuable knowledge to COVID-affected adults, helping them better understand and manage post-COVID symptoms. The overall experience of conducting the study was enriching for the investigator, contributing to both professional growth and a deeper understanding of the subject. The booklet proved helpful in educating

individuals, potentially aiding in the prevention of future COVID-19 complications.

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