

“To Assess The Knowledge And Practices Regarding Rehabilitation Among Post-Covid Patients Of Selected Areas In Sangli Miraj Kupwad Corporation Area.”

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Abstract

“A study to assess the knowledge and practices regarding rehabilitation among post-covid patients of selected areas in Sangli Miraj Kupwad Corporation area.” A quantitative study was carried out with the purpose of finding out the knowledge and practice score. Objectives of the study are: 1) To assess the existing knowledge regarding rehabilitation among post-covid patients. 2) To assess the existing practices regarding rehabilitation among post-covid patients. 3) To find out the association between existing knowledge and practice score with selected demographic variables. A present study was conducted by using quantitative approach with non-experimental descriptive research design. The conceptual framework was based on Nola J Penders health promotion model revised in 1996 with individual characteristics, activities related effect, commitment to plan of action and behavioural outcomes. The reliability was done by split half method ‘r’ was calculated by using formula coefficient correlation ‘r’ of the questionnaire was 0.83 and practice checklist was 0.72 which is more than 0.7 hence it was found to be reliable. Validity was done from 20 experts. Proposal with tool presented in front of ethical committee for permission. Total 276 samples were selected by non-probability simple random sampling method. The Chi-square was used to see the association between the demographic variables with the level of Knowledge. The test was conducted at 5% level of significance, assuming the null Hypothesis, that there will be no significant association between level of Knowledge with demographic variables. For the demographic variable education, the p value of the association test with level of Knowledge was less than 0.05. That means, the level of Knowledge of post Covid patients is associated with education. Concludes that, there was significant association of education with the level of Knowledge. For the demographic variables, age, gender, previous knowledge, etc. the p value of the association test with level of Knowledge was more than 0.05. That means, the level of Knowledge of post Covid patients is not associated with these demographic variables. Concludes that, there was no significant association of these demographic variables with the level of Knowledge. The Chi-square was used to see the association between the demographic variables with the level of Practice. The test was conducted at 5% level of significance, assuming the null Hypothesis, that there will be no significant association between level of Practice with demographic variables. For the demographic variables age, gender, education and previous knowledge, the p value of the association test with level of practice was less than 0.05. That means, the level of practice of post Covid patients is associated with these demographic variables. Concludes that, there was significant association of age with the level of practice. For the remaining demographic variables like, are you vaccinated and doses they received, the p value of the association test with level of Practice was more than 0.05. That means, the level of Practice of post Covid patients is not associated with these demographic variables. Concludes that, there was no significant association of these demographic variables with the level of Practice.

Introduction:

Corona Virus Disease (COVID-19) is an infectious disease caused by the SARS-COV-2 Virus. (Severe Acute Respiratory Syndrome Coronavirus-2). It has become the 5th documented pandemic since the 1918 flu pandemic. COVID-19 was first reported in Wuhan, China and then spread worldwide. It was officially named as SARS-COV-2 by the International Committee on Taxonomy of viruses based on phylogenetic analysis. The virus and sickness were referred to as coronavirus and wuhan coronavirus during the outbreak in Wuhan, with the condition being referred to as Wuhan pneumonia. On February 11, 2020, the WHO announced the official names COVID-19 and SARS-COV-2. Co stands for corona, Vi for virus, D for diseases, and 19 for the year 2019. (Year in which the outbreak was first identified)¹.

This infectious and communicable disease has become one of the world's most serious public health issues. Infection prevention and control strategies related with supportive care, such as supplemental oxygen and mechanical ventilation, have been the only clinical management options for COVID-19. Efforts to identify an effective treatment to stop virus reproduction, alleviate symptoms, improve survival, and lower fatality rates are still continuing. Several types of medications are being examined based on the corpus of clinical knowledge collected from infected patients regarding the natural history and progression of the infection, many of which are currently in use for other diseases. When an infected individual coughs, sneezes, t

alks, or breathes within 6 feet of you, the virus spreads by respiratory droplets. It spreads when an infected person touches or shakes hands [^{2,3}] ...

Organizations that collect data, such as the World Health Organization (WHO) and the Centres for Disease Control and Prevention (CDC), are gathering data and learning more about the epidemic on a regular basis. More than 159 million people have been infected over the world. Over 3,300,000 individuals have died as a result of the disaster. With approximately 32,000,000 persons sick and over 580,000 deaths, the United States has the highest number of cases. Nearly 23,000,000 cases and 250,000 deaths have been reported in India. The quick emergence of COVID-19, the number of persons who require ICU, and the lack of prior awareness of its manifestations all contribute to the virus's impact. COVID-19 patients experience a variety of symptoms, including respiratory failure, an overactive immune response, coagulation difficulties, and myocarditis.

Post-COVID-19 ARDS can lead to restrictive respiratory failure and subsequent pulmonary fibrosis with decreased diffusion [^{4,5}] as a result of respiratory muscle weakness and physical deconditioning. Both ARDS and COVID-19-related prolonged hospital stays, particularly time spent in critical care units, result in respiratory, physical, and psychological dysfunction in patients. As a result, they are more likely to acquire post-intensive care syndrome (PICS). PICS is described as a new or worsening physical, cognitive, or mental health condition that develops after a critical illness and persists after discharge from an acute care facility [^{6,7}].

Wearing the mask, remaining 6 feet apart, washing hands frequently, avoiding contact with ill people, keeping your hands away from your face, and obtaining adequate rest and nutrition are the greatest preventive strategies. Rehabilitation care will be a crucial link in the continuum of care, especially for severe forms and older people with chronic conditions who are unable to care for themselves. [^{8,9}]

Rehabilitation strategies must be tailored to the specific needs of each patient Patients should be assessed for possible or existing deficiencies after COVID-19 recovery to determine rehabilitation modalities (hospital or ambulatory care, intervenants, programmes), and they should be managed by a multidisciplinary team that includes a physical medicine and rehabilitation doctor, psychologist, physiotherapist, occupational therapist, and respiratory therapist, among others. Passive mobilisation, active exercises, and postures are used in neuromotor rehabilitation to restore or maintain joint range of motion in the lower limbs, shoulder girdle, and cervical spine. Using cycloergometer, muscle building begins with total muscle strengthening. Progressive verticalization to combat orthostatism inadaptation, with appropriate venous compression and blood pressure and pulse monitoring can be combined with functional exercises (bed mobility, sitting out of bed, sitting balance, sit to stand, walking); progressive verticalization to combat orthostatism inadaptation, with appropriate venous compression and blood pressure and pulse monitoring. Breathing

exercises to improve breathing control may be suggested as part of respiratory rehabilitation, pending assessment and monitoring of exercise tolerance. They are helpful at increasing tidal volume while also reducing psychological effects (stress, anxiety, and depression). Expiratory flow accelerator (EFA) technique should be used to remove pulmonary secretions if necessary. Patients with cognitive impairments associated to hypoxic encephalopathy or encephalic lesions due to coronavirus (stroke, etc.) may be offered neuropsychological therapy after an assessment. After extended intubation, speech therapy is recommended in the case of swallowing or voice problems. Patients with psychological illnesses, such as anxiety, depression, and post-traumatic stress, will receive psychiatric care; reconditioning for exercise, such as cycloergometer exercises and muscular strengthening, will be beneficial in preparing for a return to socio-professional activities. This rehabilitation can take place in a variety of settings, including inpatient, outpatient, and at home, depending on the circumstances.

Materials and method:

A present study was conducted by using quantitative approach with non-experimental descriptive research design. The conceptual framework was based on Nola J Penders health promotion model revised in 1996 with individual characteristics, activities related effect, commitment to plan of action and behavioural outcomes. The reliability was done by split half method 'r' was calculated by using formula coefficient correlation 'r' of the questionnaire was 0.83. Validity was done from 20 experts. Proposal with tool presented in front of ethical committee for permission. Total 276 samples were selected by non-probability simple random sampling method.

Results and discussion:-

Between February and March 2020, a cross-sectional study was conducted in three hospitals in Ho Chi Minh City (HCMC) utilising a convenience sampling technique and a structured self-administered questionnaire. The Poisson regression with robust choices was used to evaluate factors such as practises, prevalence ratio (PR), and 95 percent confidence interval. A statistically significant difference was defined as a P-value of less than 0.05.

The average age of the 522 participants was 51.5 minus 10.6 years. The majority of them (93.7 percent) said they learned about the COVID-19 outbreak from television and social media (72.8 percent and 62.1 percent, respectively). Just over two-thirds of the participants (68.4%) responded that they knew enough about COVID-19. Although there were some misconceptions about COVID-19, the majority of respondents (90.8 percent) had a good opinion regarding it. Almost three-quarters of them (77.2 percent) followed good preventative strategies. The rate of excellent practises was 1.24 times higher in individuals with sufficient information than in those with insufficient knowledge (PR 1.24, 95 percent CI: 1.10-1.41, P0.05). Males also had a lower rate of good practises than females (PR: 0.91, 95 percent CI: 0.83-0.99, P0.05).

The study was descriptive in nature and the population taken for the research was post-covid-19 discharged patients in selected areas of Sangli, Miraj and Kupwad Corporation area. Self-structured questionnaire were used to assess the knowledge regarding rehabilitation of covid-19. And self-reported practice checklist was used to assess the practices of post-covid patients in selected areas of Sangli, Miraj and Kupwad Corporation area.

The current study shows that, the majority of the post-covid patients male was 50% and female was 50%. In the study, according to age of the patients from selected areas of city, 48.55% of them were from group below 30 years, 34.06% were from the group 31-40 years of age, 13.77% from the 41-50 years and 3.62% from the age group above 50 years. The majority of the post-covid patients were between the age group of below 30 years.

The results of the present study demonstrated according to education of the post Covid patients from selected areas of city, 24.64% of them were educated up to primary, 25.72% educated up to secondary and 49.64% were graduates. This is because the working persons are more affected with the covid-19 infection.

Determining the risk factor for covid-19 is important for planning and implementing rehabilitation especially for the post-covid patients which can be useful in modifying existing risk factors and then promoting quality of life for those patients.

In the current study, to the question any previous knowledge about Covid 19,- 81.16% of the post Covid patients answered yes and 18.84% answered no .It means about 81.16% has knowledge about Covid-19.

In the study, according to Sources of Information regarding knowledge about Covid 19, 69.57 of the post Covid patients answered newspaper, 70.65% answered TV and 10.51% answered from textbooks.

In the study, to the question are you vaccinated, 82.97% of the post Covid patients from answered yes and 17.03% answered no.To the question How many doses you have received, 17.03% of the post Covid patients answered zero, 22.10% answered one dose and 60.87% answered two doses.

The study revealed that about 12.32% of post-covid patients were having average knowledge about rehabilitation ,63.77% were having good knowledge and 23.91% were having excellent knowledge.In practice score 7.25% of post-covid patients were having average practices,86.59%has good practices and 6.16% were having excellent practices.

Exercise helps improve breathing and to maintain a healthy lifestyle,control risk factors.Regular exercises is a major way to reduce risk of having further post-covid complications.Studies have shown that implementation of rehabilitation program with exercise guidance significantly reduces the infection. To the question, did you perform exercise like yoga, pranayama etc. 39.13% of them answered never, 34.06% answered sometimes and 26.81% answered always. Do you go for walk, 1.09% of them answered never, 54.35% answered sometimes and 44.57% answered always.Did you feel any difficulties while performing household work 77.54% of them answered never, 22.46% answered sometimes and no one answered always.Did you feel any difficulties while performing official work like sitting, holding the objects 84.78% of them answered never, 15.22% answered sometimes and no one answered always.

As sleep is important aspect of our daily life.The present study showed that majority of post-covid patients To the question, did you getting adequate rest and sleep no one of them answered never, 32.97% answered sometimes and 67.03% answered always.Did you have lack of interest or pleasure, 58.33% of them answered never, 34.78% answered sometimes and 6.88% answered always.Did you have practice of mind relaxation technique, 9.78% of them answered never, 22.10% answered sometimes and 68.12% answered always.Did you feeling tired or having little energy, 50.36% of them answered never, 41.67% answered sometimes and 7.97% answered always.

In the present study ,are you taking green leafy vegetables in diet, no one of them answered never, 48.19% answered sometimes and 51.81% answered always.Are you taking protein rich diet like milk and milk products, no one of them answered never, 61.59% answered sometimes and 38.41% answered always.Are you taking protein rich food like egg, fish, chicken etc, 12.32% of them answered never, 44.57% answered sometimes and 43.12% answered always.Are you taking vitamin C containing foods like orange, lemon and tomatoes, no one of them answered never, 19.93% answered sometimes and 80.07% answered always.

Following the covid-19 protocol is another important aspect of rehabilitation.Various forms of interventions are necessary to maintain a lifestyle change in long term.In our study,To the question, are you using face mask to cover nose and mouth, no one of them answered never, 47.46% answered sometimes and 52.54% answered always.Are you washing had regularly, no one of them answered never, 51.45% answered sometimes and 48.55% answered always.Are you maintaining social distancing, no one of them answered never, 26.09% answered sometimes and 73.91% answered always.Are you covering mouth and nose during coughing and sneezing, no one of them answered never, 46.01% answered sometimes and 53.99% answered always.

In our study, To the question, are you taking regular medications as advised by doctor, no one of them answered never, 28.62% answered sometimes and 71.38% answered always. Are you doing regular gargling, 21.38% of them answered never, 50.72% answered sometimes and 27.90% answered always. Are you taking steam inhalation for cough, 14.49% of them answered never, 65.22% answered sometimes and 20.29% answered always. Did you go for regular follow-up, 10.51% of them answered never, 20.65% answered sometimes and 68.84% answered always.

Table 1: Association between demographic variables with Knowledge regarding rehabilitation n=276

Variables	Categories	Knowledge		Chi Square	d.f.	p Value	Significance
		below Md	Above Md				
Age(in years)	below 30	57	77	4.24	3	0.23	Not Significant
	31-40	50	44				
	41-50	15	23				
	above 50	3	7				
Gender	Male	57	81	1.76	1	0.18	Not Significant
	Female	68	70				
Education	No formal education	0	0	7.01	2	0.03	Significant
	Primary	40	28				
	Secondary	31	40				
	Graduate	54	83				

ASSOCIATION OF LEVEL OF KNOWLEDGE WITH DEMOGRAPHIC VARIABLES

The Chi-square was used to see the association between the demographic variables with the level of Knowledge. The test was conducted at 5% level of significance, assuming the null Hypothesis, that there will be no significant association between level of Knowledge with demographic variables.

Significant Association:

For the demographic variable education, the p value of the association test with level of Knowledge was less than 0.05. That means, the level of Knowledge of post Covid patients is associated with education.

Concludes that, there was significant association of education with the level of Knowledge.

No Significant Association:

For the demographic variables, age, gender, previous knowledge, etc. the p value of the association test with level of Knowledge was more than 0.05. That means, the level of Knowledge of post Covid patients is not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the level of Knowledge.

**Table 2: Association between demographic variables with practices regarding rehabilitation
n=276**

Variables	Categories	Practice		Chi Square	d.f.	p Value	Significance
		Good	Excellent				
Age(in years)	below 30	92	42	35.93	3	0.000	Significant
	31-40	37	57				
	41-50	11	27				
	above 50	1	9				
Gender	Male	63	76	4.16	1	0.041	Significant
	Female	79	59				
Education	No formal education	0	0	10.46	2	0.005	Significant
	Primary	26	42				
	Secondary	32	39				
	Graduate	83	54				

ASSOCIATION OF LEVEL OF PRACTICE WITH DEMOGRAPHIC VARIABLES

The Chi-square was used to see the association between the demographic variables with the level of Practice. The test was conducted at 5% level of significance, assuming the null Hypothesis, that there will be no significant association between level of Practice with demographic variables.

Significant Association:

For the demographic variables age, gender, education and previous knowledge, the p value of the association test with level of practice was less than 0.05. That means, the level of practice of post Covid patients is associated with these demographic variables.

Concludes that, there was significant association of age with the level of practice.

No Significant Association:

For the remaining demographic variables like, are you vaccinated and doses they received, the p value of the association test with level of Practice was more than 0.05. That means, the level of Practice of post Covid patients is not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the level of Practice.

Conclusion

The chapter examines the methods of research, which demonstrate that the study is quantitative and non-experimental descriptive research design was used. The study was carried out in selected areas of Sangli, Miraj, Kupwad Corporation

area with the sample size of 276 post-covid 19 patients. Sample adding criteria and sample was chosen using Non-probability convenient sampling technique. The Structured questionnaire to assess knowledge regarding rehabilitation of covid 19 among post-covid patients and self-reported practice checklist is used. Modified by 20 experts Reliability and pilot studies were carried out after the approval of Institutional ethics committee and the tool was found to be reliable and the research to conduct final study was possible. The preliminary study was carried out on 30 samples and final study with 276 samples.

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Conflict of interest

No conflict of interest involved.

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