

Level of Health Effects Among Post COVID Patients

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Starting in December of 2019, COVID-19 spread worldwide. A rapid infection rate and human-to-human transmission characterize COVID-19. Although the pandemic has been under effective control, numbers of confirmed and suspected cases continue to rise. Physicians, nurses, and ambulance workers are more likely to be infected than any other group. To assess the level of health effect among post COVID patients and to find out association between the level of health effect among post COVID patients with their selected demographic variables. This study was conducted with 60 post-COVID patients in a quantitative approach, non-experimental descriptive design by purposive sampling technique. A self-structured questionnaire method was used to collect both the demographic data and the level of physiological and psychological health effects. 26.7% of them were under grade 1 health effects, 38.3% of them were of grade 2 health effects, and 35% of them had grade 3 health effects due to COVID-19. The study concluded that it is vital to formulate appropriate medical interventions to enhance physical and mental state among post-COVID patients. Mental health should be prioritized during the pandemic. Mental support should be made available and created accessible during and after the COVID-19 outbreak to lessen the ill effect on physiological health status.

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Introduction

The health of inhabitants is wobbling day by day. The COVID 19 pandemic is a major crisis, which is affiliated life of millions around the world [1]. The novel Coronavirus had designated as COVID-19, acts as an infectious disease without any fluctuation with rapid spread among humans has been originating from the city of Wuhan in China [2]. In response to the global crisis, the authority of each government had organized many preventive measures, such as quarantine, lockdown, suspension of flights, avoidance of gatherings, social distancing, etc. [3].

In spite of these preventive measures, the coronavirus had affected many, where they recover to some extent through home quarantine, which intern results in drastic post-COVID health effects may be physically or mentally [4]. Scientific and clinical evidence has been estimated for evolving sub-acute and long-term effects of COVID 19, which can damage multiple organs [5]. COVID 19 infection is accompanied by the robust trigger of immune response that results with the release of cytokines as inflammatory response and pro coagulation. The post COVID syndrome symptoms are fatigue,

dyspnoea, cognitive disturbances, chest pain, arthralgia [6].

Post COVID-19 health effects are defined as persistence of symptoms and development of sequelae after 3 to 4 weeks of the onset of COVID 19 symptoms [7]. The pathophysiology beyond COVID-19 results in direct viral toxicity, endothelial damage, vascularity injury, stimulation of hyperinflammatory status, hypercoagulation with thrombosis, macro thrombosis, and maladaptation to the angiotensin-converting enzyme two pathway [8]. The survival rate and recovery rate are less as compared to the spread of the disease. Inhabitants struggle with post COVID health effects [9].

The objectives of the present study were, to assess the level of health effects among post-COVID patients and to find out the association between the level of health effects among post-COVID patients with their selected demographic variables

Materials and Methods

Study Design

A Non-Experimental descriptive study was carried out among post-COVID patients. Sixty post-COVID patients were selected by purposive sampling technique in Saveetha Medical College and Hospital. The eligibility criteria were a) only post COVID patients

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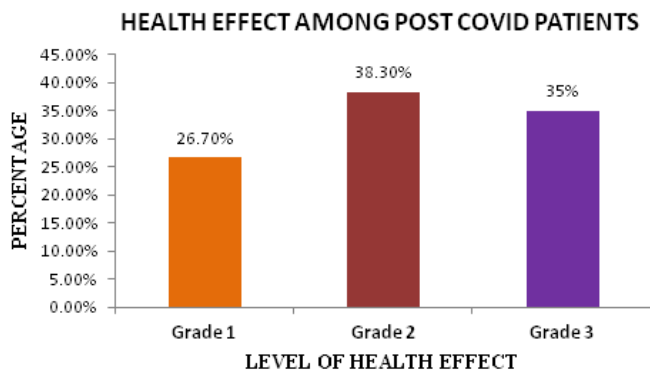


Figure 1: Level of Health effect among post-COVID patients

who are recently affected, b) willing to participate in study c) can able to read, write and understand English and Tamil. During the initial interview, the purpose of the study and the nature of the study was explained to the participants, and informed consent was obtained from the participants. The participants have been informed that participation is voluntary, and they can withdraw from the study at any time. Confidentiality of information was achieved by maintaining the anonymity of the participants.

Data collection

After obtaining ethical clearance from the Institutional Ethical Committee (IEC) and formal permission from the Medical Superintendent and Departmental Head of Medicine of Saveetha Medical College and Hospital, the main study was conducted. The demographic data and current level of physiological and psychological health effects were gathered by exploiting a self-structured questionnaire with a maximum score of 8 and a minimum score of 2.

Statistical analysis

Descriptive statistics were used to describe the demographic variables, clinical variables, and the level of physiological and psychological health effects among post-COVID patients. Demographic variables and level of physiological and psychological health effects among post-COVID patients were given in frequencies with percentages. Association between the level of physiological and psychological health effects among post-COVID patients with their selected demographic variables was analyzed using the Chi-Square test. $P < 0.05$ was considered statistically significant.

Results

About 60 post-COVID patients participated in the study. Based on the demographic variables, 58.3% were in the age group of 18-29 years, 71.1% were males, 36.7% had primary education, 46.7% were unemployed, 53.3% were vegetarian, 36.7% were in weight less than 40 kgs, 53.3% were affected by COVID-19 before 3 months, 46.7% were one who affected with COVID due to in proper care of masking, and 75% were used home quarantine method

Level of health effect

The level of health effect among post-COVID patients was assessed using a self-structured questionnaire. In figure 1 about 26.7% of them were under grade 1 health effect, 38.3% of them were of grade 2 health effect and 35% of them had grade 3 health effect due to COVID-19 with mean score of 17.54 and standard deviation 6.79 (figure 1).

In the present study, demographic variables such as education had a significant association with the level of health effect among post-COVID patients at a level of $p < 0.05$. Other demographic variables had not shown any association with health effects among post-COVID patients.

Discussion

The present study results revealed 26.7% of them were under grade 1 health effect, 38.3% of them were of grade 2 health effect, and 35% of them had grade 3 health effect due to COVID-19 with a mean score of 17.54 and standard deviation of 6.79. Association between the level of health effect with the selected demographic variable of post-COVID patients showed that demographic variables such as education had a significant association with the level of health effect among post-COVID patients at a level of $p < 0.05$. Other demographic variables had not shown any association with health effects among post-COVID patients.

The present study was supported by Duminik Menges et al. study on the burden of the post-covid-19 syndrome and its implication for health care services. The results show that 89% were under-diagnosis, 19% were initially hospitalized after 6 to 8 months, 26% were not fully recovered, 55% had fatigue, 25% had grade 1 dyspnoea, 26% had symptoms of depression [10].

The present study is also supported by Chopra V et al. study on 60 days outcomes among hospitalized COVID patients. The results showed that 6.7% of patients died, while 15% required readmission, 32.6% reported persistent symptoms, 18.9% were suffering from dyspnea while walking up the stairs, 22.9% had a persistent loss of taste. 11.5% had cough [11].

Limitations

The study has some limitations. The researcher could not generalize the study findings as the sample size is relatively small and limited to 60 post-COVID patients. Another limitation is the lack of follow-up and implementation of appropriate coping strategies. Physiological well-being among patients can differ based on their cultural differences and background. The current study has only a few supportive studies in the Indian Population due to the paucity of literature.

Conclusion

The study concluded that it is vital to formulate appropriate medical interventions to enhance physical and mental state among post-COVID patients. Mental health should be prioritized during the pandemic. Mental support should be made available and created accessible during and after the COVID-19 outbreak to lessen the ill effect on physiological health status.

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