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RESEARCH ARTICLE

IMPACT OF COVID-19 PANDEMIC ON QUALITY OF LIFE AMONG COVID-19 SURVIVORS IN SELECTED AREAS OF SOUTH INDIA

Dr. G. Vijayalakshmi[1], Dr. Radha.M.S.[2], Ms. Arya Jayan[3], Ms. Athira P.R[3], Ms. Athira P.V[3], Ms. Bency P. Methew[3], Mr. Beeresha K.N[3], Ms. Neha Kouser[3], Ms. Nivya Kumar[3], Ms. Pavithra[3], Ms. Priyanaka[3] and Ms. Ellamma[3]

1. Principal, Sri DevarajUrs College of Nursing, Kolar.
2. Vice Principal, M S Ramaiah Institute of Nursing Sciences, Bangalore.
3. B.Sc (N) Students. Sri DevarajUrs College of Nursing, Kolar.

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Abstract

Background: Corona virus Disease 2019 (COVID-19) was first detected in December2019 in Wuhan, Chinaand World Health Organization declared COVID-19 pandemic on 11 March 2020 as it affect more than 200 countries globally. Covid-19 pandemic caused profound changes across the world, even on day today activities of lives of the survivors. Hence the present study is an attempt to unravel the impact of COVID-19 on quality of life among COVID-19 survivors.

Objectives: To explore post physical, psychological and social wellbeing among COVID-19 survivor with and without co-morbidity and association between Quality of Life of COVID-19 survivors with selected Socio-demographic Variables.

Method: A non-experimental, exploratory survey research approach was used for the present study. Ethical clearance was obtained from institutional ethical committee of Sri DevarajUrs College of Nursing, Kolar. Through non-probability Snowball sampling techniques, 191 COVID 19 survivors who full filled the inclusion criteria were selected andassessed through 36-Item Short Form Health Survey questionnaire on Quality of Life (QOL).

Results: Study revealed that, majority (69%) of COVID 19 survivors had fair quality of life, 6% of them were having good quality of life and 25% of them were having poor quality of life. The study concluded that, even though COVID-19 survivors had good social health, they were having fair physical health and poor psychological health.

Conclusion: Psychological impact of covid-19 pandemic calls for planning of counselling services to improve mental health among COVID-19survivors.

Introduction:-

COVID-19 is one of the dangerous pandemics inthe human history which affected physical, psychological and socialhealth of human beings [1,2,3].Health-related quality of life is a subjective experience of patients regarding the

Corresponding Author:- Dr. G. Vijayalakshmi
Address:- Principal, Sri DevarajUrs College of Nursing, Kolar.

impact of the disease on disruption of daily activities and emotional disturbances [9,10].Most of the COVID-19 victims recovered completely, but few of them suffered with the symptoms for several months even after discharge from the hospital. Some studies reported that survivors still suffer fromprolonged symptoms and develop mental health problems in the longer term [2,5,6,7,8]. These post-acute sequels of COVID-19 symptoms can be mild, without interfering with daily activities, but it can also be severe, disturbing daily physical activities and psychological wellbeing (worry, lack of energy, depression, and sometimes stigmatization). Consequently, it impacts the quality of life of coronavirus survivors.

Studies evaluating the quality of life of COVID-19 survivors in developing countries are still scarce. Moreover, there is a little information on factors influencing the quality of life[11]. The individual perception of quality of life depends on the culture, gender, level of education, and value system in which they live[12]. Our study aimed to investigate the survivor's health related quality of life after being discharged from COVID-19 treatment and to determine its association with their socio-demographic factors.

Objectives Of The Study:-

1. To explore post-physical, psychological, and social well-being among COVID-19 survivors with and without co-morbidity
2. Association between Quality of Life of COVID-19 survivors with selected Socio-demographic Variables.

Methodology:-

Study Design and setting

The study was conducted in Kolar district, located in southern Karnataka, India between December 2020 to February 2021.The cross-sectional survey design was done using 36-Item Short Form Health Survey questionnaire on Quality of Life (QOL) developed by Boston Health Research Institute of United State. The study protocol was approved by the institutional ethical committee of Sri DevarajUrs College of Nursing, Kolar. Participants for the study were COVID-19 survivors who were admitted in a tertiary care Hospital at Kolar.

Data Collection

Researchers approached the health care workers who were involved in care of COVID-19 positive patients. Based on their referral, through snow ball technique, researchers met the COVID-19 survivors after three months of their discharge from the hospital.Obtained informed consent from the participants by explaining the purpose of the study.Then the data was collected by using socio-demographic data sheet followed by Health related QOL questionnaire from 191 COVID 19 survivors.

Statistical Analysis

The collected data was analysed usingdescriptive and inferential statistics as per the stated objectives of the study. The categorical variables on post-physical, psychological and social well-being among COVID-19 survivors were presented with frequency and percentages and for association between Quality of Life (QOL) with selected socio demographic variables chi square test was used.

Results:-

Section-A: Socio-demographic variables of participants

Table 1:- Socio- demographic variables of participants N=191.

SL.NO	VARIABLES	FREQUENCY	PERCENTAGE
1.	**AGE**		
	16-30	**130**	**68**
	31-45	34	18
	46-60	19	10
	61-75	8	04
2.	**Gender**		
	Male	60	31
	Female	**131**	**69**
3.	**Occupation**		
	Daily wages	33	17

	Employee **Student**	56 **102**	29 **53**
4	**Suffered with post-acute sequel of COVID-19** **Yes** **No**	 **178** 13	 **93** 7

Table 1 shows that, majority (68%) of COVID survivors were between the age group of 16 to 30 years and 18% of them were between 31 to 45 years.Most (69%) of COVID-19 survivors were females and 31% of were males.Majorities (53%) of them were students, 29% of them were employees and 17% of them were daily wagers and most (93%) of them had associated illness after covid-19.

Section-B: Quality of Life among COVID 19 Survivors

Description: According to a study on **Evaluation of SF-36 questionnaire for assessment of the quality of life of endometriosis patients undergoing treatment**[14]have classified the quality of life as:

Poor quality of life	Fair quality of life	Good quality of life
<50%	51% to 70%	>71%

Base on same classification, present study results is classified and presented in table:-2.

Table 2:- Distribution of COVID-19 survivors based onOverall Quality of Life N =191.

QUALITY OF LIFE	f	%
Poor (< 50%)	48	25%
Fair (51%-70%)	**132**	**69%**
Good (>71%)	11	6%
Overall Quality of Life	Mean= 63.66	SD=50.62

Table-2, illustrate distribution of overall quality of life among COVID-19 survivors. Majority (69%) of COVID-19 survivors werehaving fair quality of life, 6% of them were having good quality of life and 25% of them were having poor quality of life.

Table 3:- Domain wiseQuality of Life among COVID 19 Survivor N=191.

Domains	Mean	SD
Physical health	63.8	12.9
Psychological health	52.9	9.8
Social health	**67.5**	**20.2**

Table-3,depicts distribution ofdomain wisequality of life among COVID 19 survivor. The highest mean value of 67.5 with SD of 20.2 was seen in area of social health and the lowest mean value of 52.9 with SD of 9.8 was seen in the area of Psychological Health and remaining one domain that is on physical Health, the mean value was 63.8 with SD of 12.9. This indicates that, even though COVID-19 survivors had good social and physical health, they were having poor psychological health.

Section-C:Association between QOL of covid-19 survivors with selected socio-demographic variables

Table 4:- Association between QOL with selected socio-demographic variables N =191.

Variable	Quality of life			X^2	Df	p value	Interpretation
	Poor QOL	Fair QOL	Good QOL				
Age					1		
• ≤60	45	130	8	17.46		0.001	SS
• > 60	3	2	3				
Gender					1		
• Female	33	22	5	45.38		0.001	SS
• Male	15	110	6				

Education • No formal education • Formal education	30 18	130 2	6 5	50.81	1	0.001	SS
Associated illness after COVID • Affected • Not affected	43 5	127 5	8 3	10.14	1	0.006	SS

SS= Statically Significant

Table 4: The association between quality of life with selected socio demographic variables revealed that, there was an association between quality of life with age, gender, educational status and associated illness.

Discussion:-

Primary outcome

Corona virus (Covid-19) is a disease that causes prolonged illness andpersistent symptoms not only among elderly but also in young adults and people with no or few chronic underlyingmedical conditions.Similar findings were seen among Patients who recovered from COVID also continued to be affected with hypoxia, shortness of breath, and reduced ability to work leading to poorer health-related quality of life (HRQoL) in both the short and long term.[12]

With regard to quality of life among COVID-19 survivors,majority (69%) of them had fair quality of life, 6% had good quality of life and 25% had poor quality of life, which was contradicted by the study conducted on Health-related quality of life in survivors of COVID-19 infectionin Italy,wherepatients reported an overall worse quality of life which was assessed by using E**uropean Quality of Life 5 Dimensions 3 Level Version (EQ-5D-3L)** following 3 monthsafter COVID-19 infection[15].

With regard to Domain wise mean QoL Score, the highest mean value of 67.5with SD of 20.2 was seen in area of Social Health and the lowest mean value of 52.9 with SD of 9.8 was seen in the area of Psychological Health, further with Physical Health, mean value was 63.8 with SD of 12.9 was seen. This indicates that even though COVID-19 survivors had good social health, they were having fair physical health and poor psychological health. This finding was supported by a study on Clinical outcomes and quality of life of COVID-19 survivors where physical and psychological domain of Quality of life was mostly affected among COVID-19 survivor[16].

Few more reviews revealed that, the HRQoL score (i.e. SF-36 score) of patients with acute COVID found to be lower compared to the patients with long COVID. In Acute COVID, mental components score was slightly higher than physical components score (PCS),[13] but opposite was found in Long Covid-19 cases.[14] The HRQoL scores of elderly patients were not considerably improved even after six weeks of discharge from hospitals [13]. The long-term impacts of Covid-19 are still in its initial stage and it has not been fully developed yet. Impact of Covid-19 on HRQoL was conducted between 4 and 12 weeks from the onset of symptoms. This revealed that, patients with Long COVID had fatigue, muscular pain, shortness of breath and cough[17].

With regard to association between quality of life of COVID survivors with selected socio demographic variables revealed that, there was a statistically significant association between quality of life with age, gender, educational status and associated illness (p=0.001).

Conclusions:-

We describe the severe impact across the physical and psychological domains of HRQL in COVID-19 survivors about three months following their discharge from acute hospitals receiving no support from rehabilitation community services. Muscle weakness and the number of co-morbidities at the time of discharge appeared to be associated with lower physical functioning. Interestingly younger patients were more affected in their perceived physical functioning, as well as in vitality.

Thus, based on the above findings, we can conclude that the government has to take drastic measures, keeping in mind the overall physical and psycho-social impact of the COVID-19 pandemic. The government has to devise a plan for improving the physical health and to mitigate the psychological stress of the covid-19 survivors. A proactive investment toward counsellors, psychiatrists, and psychologists is required to meet the post-COVID-19

psycho-social-related issues. The government should also encourage yoga and meditation programs to improve the mental health of individuals

However, the study has few limitations; First, the accuracy of the responses cannot be ascertained high chances of personal biases in the respondent responses. Second, the study included only the survivors who were admitted in one tertiary care hospital and accessible at the time of data collection.

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