



# “A STUDY TO ASSESS THE QUALITY OF LIFE AMONG POST COVID-19 PATIENT IN HARIDWAR UTTRAKHAND”

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## ABSTRACT

**Background:** Corona virus Disease 2019 (COVID-19), which was first detected in December 2019 in Wuhan, China, has created a public health emergency worldwide. The World Health Organization (WHO) declared COVID-19 a pandemic on 11 March 2020. The pandemic as affected more than 200 countries globally, and has severely affected global health. As of 17 August 2021, according to official figures, India has the second-highest number of confirmed cases in the world (after the United States) with 32.2 million reported cases of COVID-19 infection and the third-highest number of COVID-19 deaths (after the United States and Brazil) at 432,079 deaths.

**Aim:** To assess the quality of life among post COVID-19 patient in Haridwar Uttarakhand.

**Design:** An experimental descriptive research design was adopted for the study.

**Setting:** The present study was conducted in Haridwar, Uttarakhand.

**Method:** Data was collected by using WHOQOL-BREF questionnaire on quality of life. The tool has two parts, demographic variables and the second part questions on quality of life. Collected data was analyzed by using descriptive and inferential statistics.

**Results:** Depicts majority of the post COVID-19 patient i.e. 58% are in the age group of 18 to 40 years, were as 33% belongs to 41 to 63 years and only 9% post COVID-19 patient belongs to 64 to 88 years age group. The overall perception of health among post COVID-19 patient questions were asked to the post COVID-19 patient how satisfied they are with their health. Majority of 58.7% of the post COVID-19 patient were neither satisfied nor dissatisfied with their health status followed by 25.80% of post COVID-19 patient were satisfied with their health there were only 14% of post COVID-19 patient who are dissatisfied with their health only 0.70% of each the post COVID-19 patient were very dissatisfied and very satisfied with their health. The highest quality of life mean score was found in social relationship domain with highest main score of 14.6 followed by physical domain. Highest mean score is social domain denotes that post covid-19 patient had good social relationship. So it could be inferred from the result that their social contacts and the support they derived from their personal relationship and peer group has great influence on their Quality of Life. To compare the two-variable Quality of Life mean scores z test was applied for physical domain which showed the younger aged 18 to 50 year mean score was 14.97 was slightly higher than the elder age group 51 to 88 years old but the difference was not significant. While comparing a quality of life means score male was 14.44 add slightly better quality of life mean score than the

female mean score 14.23 but this difference was not significant. In education status literate participant means score 14.47 was higher than the illiterate mean score 11.18 this difference also not significant. Single participant had better Quality of Life means score 15.50 which is slightly higher than the married participant mean score 13.78 but not significant. to compare the two-variable quality of life mean scores z test was applied Environmental domain which showed the younger aged 18 to 50 year mean score was 14.44 was slightly higher than the elder age group 51 to 88 years old but the difference was not significant. While comparing a quality of life means score male 59 was 14.44 add slightly better quality of life mean score than the female mean score 14.19 but this difference was not significant. In education status literate participant means score 14.44 was higher than the illiterate mean score 14.20 this difference also not significant. the association between quality of life in physical to domain with their selected demographic variables. Highly significant association were found between quality of life in physical domain with the age of the participants was significantly associated with 24.964 quality of life in physical domain. the association between quality of life in psychological domine with their selected demographic variables. Highly significant association were found between quality of life in psychological domain with the age of the participants was significantly associated with 28.498 quality of life in physical domain. Depicts the association between quality of life in social domain with their selected demographic variables. Highly significant association were found between quality of life in social domain with the age of the participants was significantly associated with 5.694 quality of life in social domain. depicts the association between quality of life in environmental domain with their selected demographic variables. Highly significant association were found between quality of life in environmental domain with the age of the participants was significantly associated with 6.649 quality of life in environmental domain.

**Conclusion:** As the research results showed that post COVID-19 patients were getting adequate support from the society, community, family members and relative so post COVID-19 patients had better quality of life in social domain. Highest mean score is social domain denotes that post covid-19 patient had good social relationship. So it could be inferred from the result that their social contacts and the support they derived from their personal relationship and peer group has great influence on their Quality of Life. The second highest quality of life mean score was found in physical and environmental domain with the main score of 14.3 in each domain. Comparative all domains mean score was found slightly less in psychological domain 13.6 it could be because of negative feeling, cognitive difficulties, low self-esteem, low self-concept and negative feeling regarding the health care services especially during the time of COVID-19.

**Key words:** COVID-19 patient, Quality of life

### Introduction:

The first cases of COVID-19 in India were reported on 28 January 2020 in three towns of Kerala, among three Indian medical students who had returned from Wuhan, the epicenter of the pandemic. Lockdowns were announced in Kerala on 23 March and in the rest of the country on 25 March. By mid-May 2020, five cities accounted for around half of all reported cases in the country: Mumbai, Delhi, Ahmadabad, Chennai and Thane. On 10 June, India's recoveries exceeded active cases for the first time. Infection rates started to drop in September, along with the number of new and active cases. The COVID-19 pandemic has drastically changed the lives of countless members of the general population. Due to COVID-19 pandemic almost every family was affected, children were affected as schools were closed so their education was hampered, parents were affected as some has to lose their jobs due to COVID and because of which they had to suffer both monetarily and mentally. Older adults are known to experience loneliness, age discrimination, and excessive worry. Bereavement, isolation, loss of income and fear are triggering mental health condition or exacerbating existing ones. Quality of life is a concept which aims to capture the well-being, whether of a population or individual, regarding both positive and negative elements within the entirety to their existence at a specific point in time. For example, common facets of quality of life include personal health (physical, mental, and spiritual), relationships, education status, wealth, freedom, social belonging and their physical surroundings. All factors of quality of life have been affected due to COVID-19 pandemic. Many children and adolescents in developed countries lead sedentary lifestyles, reduced active leisure activities, and increased reliance on sedentary lifestyles. Before the COVID-19 pandemic, a previous study

stated that 81% of students aged 11–17 years were insufficiently physically active. Independently of physical activity levels, sedentary activities, especially those based on the use of electronic devices, are associated with an increased risk of obesity, a reduction in physical condition, self-esteem, and prosaically behavior. In this regard, the COVID-19 pandemic has increased the amount of screen recreational time. WHO defines Quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectation, standards and concerns. It is a broad ranging concept affected in a complex way by the person's Physical health, psychological state, personal beliefs, social relationship and their relationship to salient features of their environment.

**Statement of the problem:** “A study to assess the quality of life among post COVID-19 patient in Haridwar, Uttrakhand”

### Objectives:

- 1 To assess the level of quality of life among post COVID-19 patient.
- 2 To compare the quality of life mean scores among post COVID-19 patient with their selected demographic variables.
- 3 To find the association between level of quality of life with their selected demographic variables.

**Material and method:** Research approaches are plan and procedure for research that span the step from board assumption to detailed methods of data collection, analysis and interpretation. The present study adopted Quantitative, non-experimental Approach as it was considered most suitable for study. Research design is a blue print for collection, measurement and analysis of data. An experimental descriptive research design was adopted for the study. 271 subjects were selected through purposive, snow ball sampling technique.

The tool consists of socio demographic profile and Standard World Health Organization Quality of Life –BREF TOOL. The reliability of tools the tools were administered to 6 participants. The reliability of tool was established by using test retest method and it was found to be  $r = 0.98$ . This indicated that tool was highly reliable. Feasibility of the study was confirmed by pilot study. The data was organized, analyzed and interpreted in terms of the study objectives. The data was summarized and tabulated by using descriptive statistics (Mean, Percentage, Standard Deviation) and inferential Statistics (Paired't' test, Chi-square and Chi-square with Yates correction, Fisher exact).

## Results

### Section 1: Distribution of respondents according to socio-demographic variables

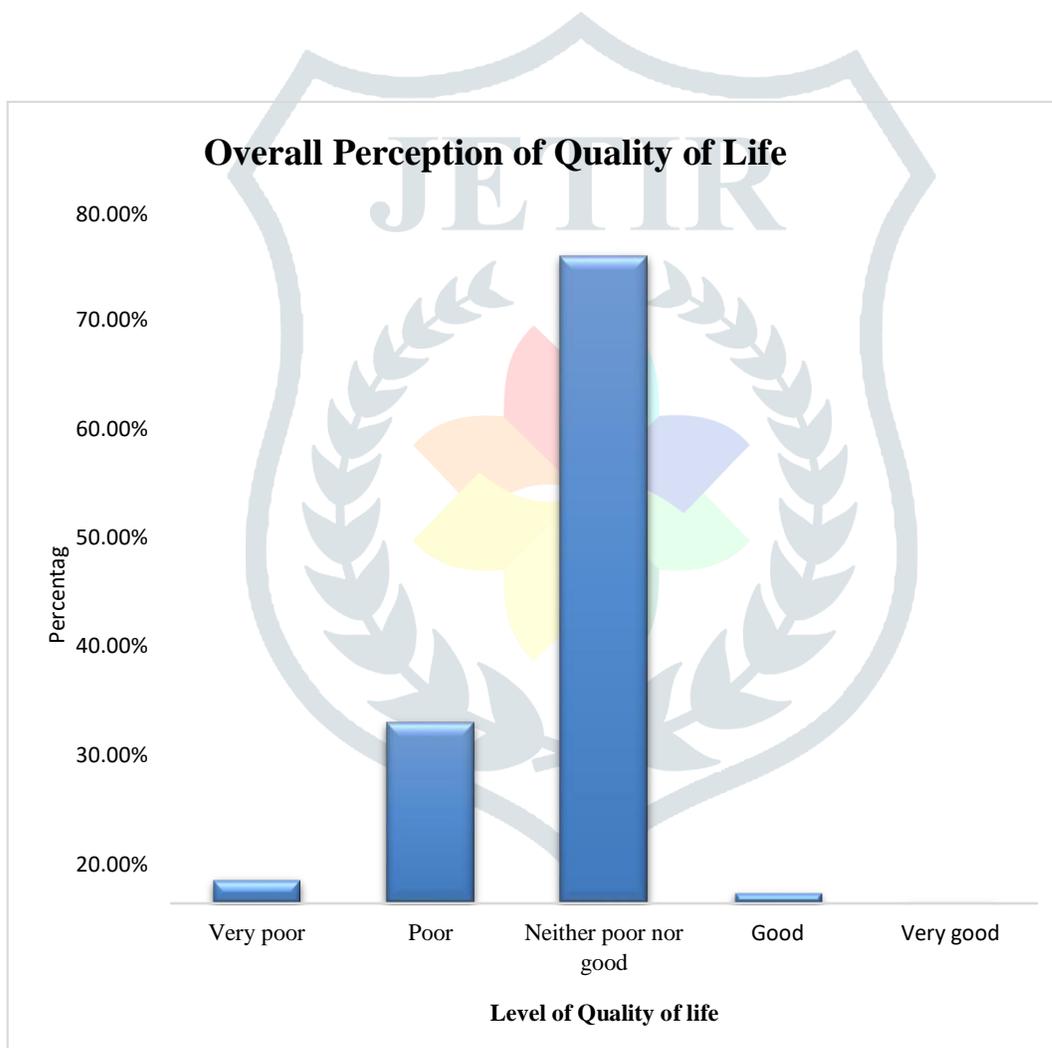
**Table No. 1 -Distribution of respondents according to socio-demographic variables**

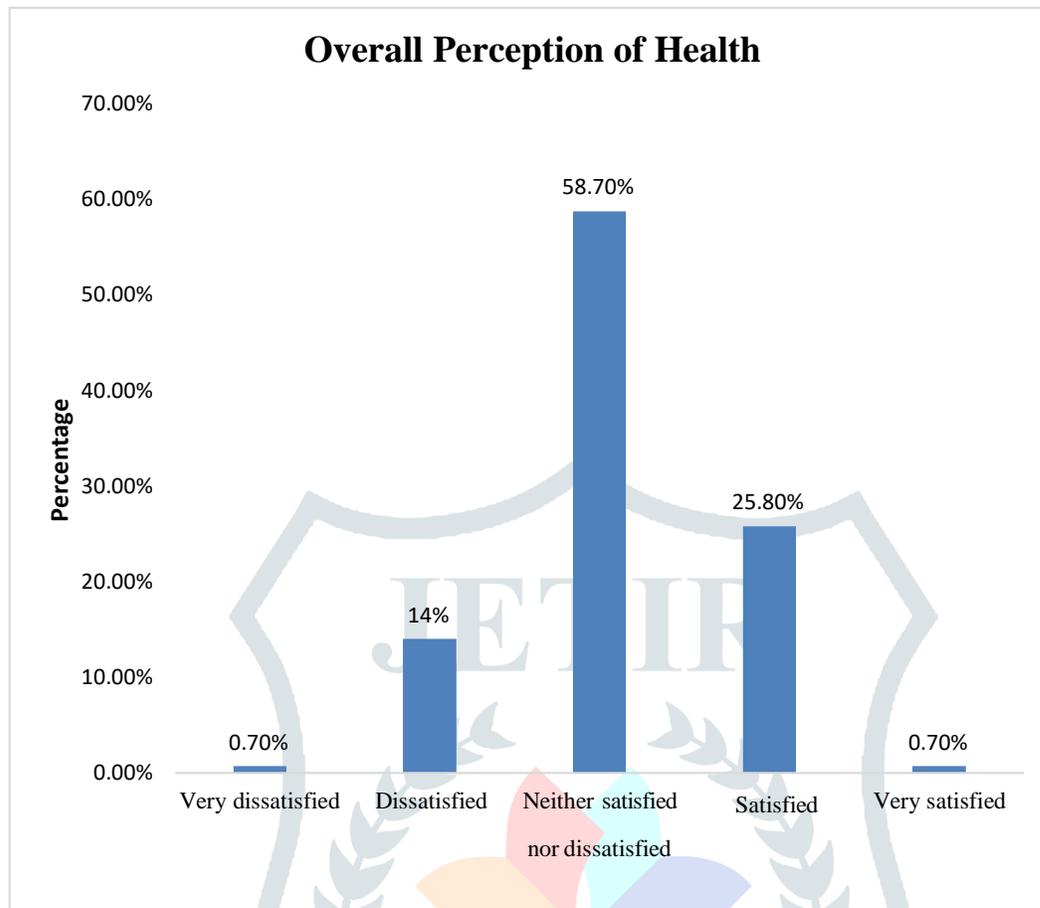
N=271

S. No	Demographic variable	Frequency (F)	Frequency Percentage (F %)
1	Age in year		
	a) 18 to 40 years	159	58
	b) 41 to 63 years	89	33
	c) 64 to 88 years	23	09
2	Gender		
	a) Male	141	52
	b) Female	130	48
3	Education		

	a) Illiterate	11	04
	b) Primary School	48	18
	c) Secondary School	60	22
	d) Tertiary School	152	56
4	Marital status		
	a) Married	184	68
	b) Separated	03	01
	c) Single	83	31
	d) Widowed	01	01
5	Are you currently ill?		
	a) Yes	62	23
	b) No	209	77

**2(a)-Percentage Distribution of post COVID-19 Patient of their Overall Quality of Life**



**2 (b) Percentage Distribution of post COVID-19 Patient of overall Health**

**Graph 2 (b)** – depicts the overall perception of health among post COVID-19 patient questions were asked to the post COVID-19 patient how satisfied they are with their health. Majority of 58.7% of the post COVID-19. patient were neither satisfied nor dissatisfied with their health status followed by 25.80% of post COVID-19 patient were satisfied with their health there were only 14% of post COVID-19 patient who are dissatisfied with their health only 0.70% of each the post COVID-19 patient were very dissatisfied and very satisfied with their health.

**Section 2****Percentage Distribution of post COVID-19 Patient of overall Health**

overall perception of health among post COVID-19 patient questions were asked to the post COVID-19 patient how satisfied they are with their health. Majority of 58.7% of the post COVID-19 patient were neither satisfied nor dissatisfied with their health status followed by 25.80% of post COVID-19 patient were satisfied with their health there were only 14% of post COVID-19 patient who are dissatisfied with their health only 0.70% of each the post COVID-19 patient were very dissatisfied and very satisfied with their health.

**Table 2: Domain wise Mean QOL score**

(N=271)

Sl. No	QOL Domain	Mean Score and SD
1.	Physical domain	14.3±2.62
2.	Psychological domain	13.6±2.26
3.	Social relationship domain	14.6±2.88
4.	environmental domain	14.3±2.16

**Table 2** depicts domain wise mean quality of life score according to the guideline mentioned in WHO quality of life BREF tool the highest quality of life mean score of domain denotes high Quality of Life in particular domain. The highest quality of life mean score was found in social relationship domain with highest main score of 14.6 followed by physical domain. Highest mean score is social domain denotes that post covid-19 patient had good social relationship. So it could be inferred from the result that their social contacts and the support they derived from their personal relationship and peer group has great influence on their Quality of Life. The second highest quality of life mean score was found in physical and environmental domain with the main score of 14.3 in each domain. Comparative all domains mean score was found slightly less in psychological domain 13.6 it could be because of negative feeling, cognitive difficulties, low self-esteem, low self-concept and negative feeling regarding the health care services especially during the time of COVID 19.

**Section – 3****Table-3 (a): Comparison between Physical Domain and Social Demographic****Variables.****N=271**

S. No	Socio Demographic Variable	Physical domain (Mean±SD)	Z Calculated Value	test	Mean Difference
1.	Age in year				
	a) 18 to 50 years	14.97	7.128		2.19
	b) 51 to 88 years	12.78			
2.	Gender				
	a) Male	14.44	0.65		0.21
	b) Female	14.23			
3.	Education				
	a) Illiterate	11.18	-9.77		3.29
	b) Literate	14.47			
4.	Marital status				
	a) Married	13.78	-5.27		1.72
	b) Single	15.50			

5. Are you currently ill?			
a) Yes	12.31	-8.19	2.62
b) No	14.93		

Yates@, level of significant, not significant

Table-3 (b): Comparison between Psychological Domain and Social Demographic Variables.

S. No	Socio Demographic Variable	Psychological domain (Mean±SD)	Z test Value	Calculated Mean Difference	N=271
1.	Age in years				
	a) 18 to 50	13.94	4.98	1.16	
	b) 51 to 88	12.78			
2.	Gender				
	a) Male	13.67	0.46	0.14	
	b) Female	13.53			
3.	Education				
	a) Illiterate	10.36	-6.40	3.38	
	b) Literate	13.74			
4.	Marital status				
	a) Married	13.28	-3.11	1.00	
	b) Single	14.28			
5.	Are you currently ill?				
	a) Yes	12.58			
	b) No	13.90	-5.43	1.32	

Yates@, level of significant, not significant

**Table-3 (c): Comparison between Social Domain and Social Demographic Variables.**

(N=271)

S. No	Socio Demographic Variable	Social domain (Mean±SD)	Z test Calculated Value	Mean Difference
1.	Age in year			
	a) 18 to 50 years	14.52	-1.36	0.42
	b) 51 to 88 years	14.94		
2.	Gender			
	a) Male	14.79	0.88	0.31
	b) Female	14.48		
3.	Education			
	a) Illiterate	11.09	-3.66	3.7
	b) Literate	14.79		
4.	Marital status			
	a) Married	15.40	6.83	2.36
	b) Single	13.04		
5.	Are you currently ill?			
	a) Yes	14.58		
	b) No	14.66	-0.23	0.08

Z test@, level of significant, not significant

**Table-3 (d): Comparison between Environmental Domain and Social Demographic Variables.**

N=271

S. No	Socio Demographic Variable	Environmental domain (Mean±SD)	Z test Calculated Value	Mean Difference
1.	Age in year			
	a) 18 to 50 years	14.44	1.76	0.42
	b) 51 to 88 years	14.02		
2.	Gender			
	a) Male	14.44	0.93	0.25
	b) Female	14.19		
3.	Education			
	a) Illiterate	11.36	-3.22	3.08

	b) Literate	14.44		
4.	Marital status			
	a) Married	14.20	-1.20	0.36
	b) Single	14.56		
5.	Are you currently ill?			
	a) Yes	13.70		
	b) No	14.50	-3.35	0.80

Z test@, level of significant, not significant

### Section 4 (a): Association between Quality of Life Physical Domain with Select Demographic Variables.

N=271

S. No	Socio Demographic Variable	Below Median	Median and Above Median	Calculated value
1.	Age in years			
	a) 18 to 50	135	58	24.964*
	b) 51 to 88	29	49	
2.	Gender			
	a) Male	87	54	0.678
	b) Female	77	53	
3.	Education			
	a) Illiterate	1	10	12.690*
	b) Literate	163	97	
4.	Marital status			
	a) Married	97	87	14.591*
	b) Widowed	67	20	
5.	Are you currently ill?			
	a) Yes	17	45	
	b) No	147	62	36.856*

2.20 At p<0.05 level \* highly significant

### Section 4 (b): Association between Quality-of-Life Psychological Domain and Social Demographic Variables.

N=271

S. No	Socio Demographic Variable	Below Median	Median and Above Median	Calculated value
1.	Age in years			
	a) 18 to 50	121	72	28.498*
	b) 51 to 88	21	57	
2.	Gender			
	a) Male	75	66	0.074
	b) Female	67	63	
3.	Education			
	a) Illiterate	0	11	12.621*
	b) Literate	142	119	
4.	Marital status			
	a) Married	80	104	18.285*
	b) Widowed	62	25	
5.	Are you currently ill?			
	a) Yes	12	50	35.193*
	b) No	130	79	

2.04 At  $p < 0.05$  level \* highly significant

### Section 4 (c): Association between Quality-of-Life Social Domain and Social Demographic Variables.

N=271

S. No	Socio Demographic Variable	Below Median	Median and Above Median	Calculated value
1.	Age in year			
	a) 18 to 50 years	122	71	5.694*
	b) 51 to 88 years	61	17	
2.	Gender			
	a) Male	98	43	0.523
	b) Female	85	45	

<b>3.</b>	Education			
	a) Illiterate	3	8	8.473*
	b) Literate	180	80	
<b>4.</b>	Marital status			
	a) Married	144	40	30.111*
	b) Widowed	39	48	
<b>5.</b>	Are you currently ill?			
	a) Yes	39	23	0.376
	b) No	144	65	

**2.13 At  $p < 0.05$  level \* highly significant**

### Section 4 (d): Association between Quality-of-Life Environmental Domain and Social Demographic Variables.

**N=271**

S. No	Socio Demographic Variable	Below Median	Median Above Median	and Calculated value
<b>1.</b>	Age in years			
	a) 18 to 50	122	71	6.649*
	b) 51 to 88	36	42	
<b>2.</b>	Gender			
	a) Male	87	54	1.397
	b) Female	71	59	
<b>3.</b>	Education			
	a) Illiterate	1	10	11.422*
	b) Literate	157	103	
<b>4.</b>	Marital status			
	a) Married	97	87	7.354*
	b) Widowed	61	26	
<b>5.</b>	Are you currently ill?			
	a) Yes	21	41	19.739*
	b) No	137	72	

**2.12 At  $p < 0.05$  level \* highly significant**

## DICUSSION

The study results showed that male participants had slightly higher quality of life mean scores 14.44 than female participants (14.23). The study results showed the younger aged 18 to 50 year mean score was 14.97 was slightly higher than the elder age group 51 to 88 years old but the difference was not significant. It could be because the participants belongs to 51- 88 age group had more functional limitations compared to the participants belongs to 18- 50 age group. As the age advanced, the health related problems become more common to a person. The study results showed that Single participant had better Quality of Life means score 15.50 which is slightly higher than the married participant mean score 13.78 but not significant. The study results showed that education status literate participant means score 14.47 was higher than the illiterate mean score 11.18 this difference also not significant. The study results showed that Participants who are not currently ill had a better Quality of Life mean score 14.93 than who are currently ill this difference were not significant. It was found that there is significant association were found between quality of life of physical domain with age of the post COVID-19 participants. Significant association was found between quality of life of physical domain with education of the post COVID-19 participants. Significant association was found between quality of life of physical domain with marital status of the post COVID-19 participants. Also significant association was found between quality of life of physical domain with current illness status of post COVID-19 participants. In psychological domain significant association was found between quality of life in social domain with age of the post COVID-19 participants. Significant association was found between quality of life in psychological domain with education of the post COVID-19 participants. Significant association was found between quality of life in psychological domain with marital status of the post COVID-19 participants. Also significant association was found between quality of life in psychological domain with current illness status. In social domain significant association was found between quality of life in social domain with age of the post COVID-19 participants. Significant association was found between quality of life in social domain with education of the post COVID-19 participants. Also significant association was found between quality of life in psychological domain with marital status of the post COVID-19 participants. In environment domain significant association was found between quality of life in social domain with age of the post COVID-19 participants. Significant association was found between quality of life in environment domain with education of the post COVID-19 participants. Significant association was found between quality of life in environment domain with marital status of the post COVID-19 participants. Also significant association was found between quality of life in environment domain with current illness status

### Recommendation:

- By improving cognitive difficulties, low self-esteem, low self-concept and negative feeling will help in improvement of environment domain.

### Conclusion

As the research results showed that post COVID-19 patients were getting adequate support from the society, community, family members and relative so post COVID-19 patients had better quality of life in social domain. Highest mean score is social domain denotes that post covid-19 patient had good social relationship. So it could be inferred from the result that their social contacts and the support they derived from their personal relationship and peer group has great influence on their Quality of Life. The second highest quality of life mean score was found in physical and environmental domain with the main score of 14.3 in each domain. Comparative all domains mean score was found slightly less in psychological domain 13.6 it could be because of negative feeling, cognitive difficulties, low self-esteem, low self-concept and negative feeling regarding the health care services especially during the time of COVID-19.

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