

## **Lifestyle implication among patients with selected comorbidities post COVID-19**

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**Abstract:** While the world was running quickly for the sake of progress and monetary increase, the Novel human Coronavirus has driven the world to stop due to its dangerous result. The disease has shattered every corner of the world and destroyed many families. The Novel Coronavirus has set a respite button on the world. The serious and deadly outcome of the disease has swept many countries to shut their daily activities. COVID-19 had a very piercing impact not only on health factors but also it shattered economy and society, globally. Many countries in the world are affected by the serious pandemic issue which has forced to advise lockdown in order to prevent the transmission. These results have demonstrated the weakness of global networks, severely affecting well-being, food supplies and job stability. Many of the patients has overcome the battle with COVID-19 while many are worst hit by the same. Patient with underlying comorbidity have reportedly increased intensive care unit admissions during the hospital stay for COVID-19. Compared to other patient hit by COVID-19 without any underlying disease, the patient with one or more comorbidities have shown delayed and in most cases no prognosis. Patients with comorbidities were worst hit by COVID-19 with highest rate of mortality. Considering all these severity of COVID-19 with underlying comorbidity, particularly Hypertension and Diabetes Mellitus, this study aims to assess the lifestyle Implications among patients. Additionally the study also focuses to find the association between the lifestyle Implications withdetermined demographic variables and finds the correlation of lifestyle implications with selected comorbidities.

**Methodology:** A research approach adopted for the study was Non-Experimental Descriptive approach to assess the lifestyle implication among patients with selected comorbidities post COVID-19 from Pune City. There were total 100 samples who met the inclusion criteria of the study. All the samples accepted to participate in the research and was selected using Non Probability Purposive Sampling Technique.

**Result:** The analysis depicts that about 14% of total population have shown mild lifestyle implication, 83% of the population has shown moderate changes and 3% population have shown severe implication in their lifestyle post COVID-19.

**Conclusion:** The current study concludes that the patients with selected comorbidities (i.e. Hypertension and Diabetes) post COVID-19 were found to have moderate Lifestyle Implication in overall physical, psychological and socio-economic aspects.

**Keyword:** Assess, Lifestyle, Implication, Comorbidity, COVID-19

## **INTRODUCTION AND BACKGROUND**

As the Novel Coronavirus keeps on advancing, there are as yet numerous impediments as far as anyone is concerned of who this infection might hit fundamentally. Serious intense respiratory misery condition infection Coronavirus one more from beta COVID is firmly connected with the COVID that was accounted for in 2002. The first case was detected in December from the Wuhan city of China. Older Adults and patients with underlying disease condition are found to have worse prognosis. Given the nature of this virus, there is still much to learn about this virus. We all know that the symptoms of COVID-19 ranges from common cold to severe complications or diseases like Bronchitis, Pneumonia, Multi-Organ failure and even Death. Patients with comorbidity such as Diabetes and Hypertension are been linked to have more admission rates in Intensive care Units.<sup>3</sup> Reasons being the underlying comorbidity that the patient is suffering from. It has been examined that the patients with underlying comorbidity has severe impact from that of the normal ones. Additionally, the impaired Immune system because of underlying Diabetes Mellitus could be the contributing determinant for the susceptibility of COVID-19. Patients have shown increased rates of Multi-organ failure and a slow prognosis as a result of the underlying comorbidity. Comparatively patients have reported lifestyle implication after the hospital stay than those of the normally affected COVID-19 without any underlying comorbidity. Complaints such as weakness, pain, breathlessness, etc, even after discharge. Thus, the current study focuses on assessing the lifestyle implication among the patients with selected comorbidity post COVID-19.

A systemic review and meta-analysis on 69 publications and 61 studies was conducted to evaluate associations of comorbidities factor with severity of COVID-19. The outcomes recommended the guys had altogether higher sickness seriousness and more prognostic endpoints. More seasoned age was viewed as fundamentally connected with the illness seriousness and six prognostic endpoints. Persistent kidney sickness contributed for the most part for death, constant obstructive pneumonic infection (COPD) for illness seriousness, admission to emergency unit, the composite endpoint, intrusive ventilation, and sickness movement, cerebrovascular infection for intense respiratory pain disorder (ARDS), coronary illness for heart anomaly. Our review featured that the male orientation, more seasoned age and comorbidities possessed solid epidemiological proof of relationship with the seriousness and forecast of COVID-19<sup>1</sup>. Also, Diabetes and Metabolic Syndrome: Clinical research and review article was published in Elsevier journal the results showed diabetes and poor glycaemic

control are related with expanded seriousness and the rate of mortality in patients with COVID-19. A few clinical situations about hyperglycemia and COVID-19 are distinguished and every one of these requirements explicit administration methodologies.<sup>2</sup>A study that retrospectively analyzed 961 COVID-19 patients who had a definitive clinical outcome (either death or discharge) was conducted. The prevalent comorbidities found were hypertension (32.8%), diabetes (15.7%), and cardiovascular disease (9.9%). A total of 22 (2.3%) patients reported having asthma, while 21 (2.2%) had COPD. There were no cases of patients having both asthma and COPD simultaneously. Aligning with findings from earlier studies, our group identified hypertension, diabetes, and malignancies as the most common comorbidities present in COVID-19 patients, while COPD and asthma were less frequently seen. Furthermore, consistent with prior research, we observed that COPD was linked to more severe cases of COVID-19. Conversely, asthma was more frequently associated with non-severe cases than with severe cases. In comparison to patients with asthma, those with COPD experienced higher mortality rates.<sup>4</sup>

### **Problem Statement:**

A study to assess the lifestyle implication among patients with selected comorbidities post COVID-19 from selected areas of Pune City.

### **OBJECTIVES**

1. To assess the lifestyle implication among patients with selected comorbidities post COVID-19.
2. To find out the association between the lifestyle implication with selected demographic variables.
3. To find the correlation of lifestyle implications with selected comorbidities.

### **HYPOTHESIS**

**H<sub>1</sub>**- There will be correlation between lifestyle implication and comorbidities

**H<sub>2</sub>**- There will be significant association between the lifestyle implications of comorbidities with selected socio-demographic variables.

## **METHODOLOGY**

**Research Design:** The design adopted by the researcher for current study was Non-Experimental Descriptive Survey. The research was carried on patients with predetermined comorbidities post COVID-19.

**Population:** Patients affected with COVID-19 with selected Comorbidities.

**Sampling techniques:** Sampling technique used for the study was NonProbability Purposive sampling technique and the Patients were selected with comorbidities post COVID-19

**Sample Size:** 100 samples who met the inclusion criteria of the study. All the samples were pre-informed about the study objectives and were willing to participate in the study.

**Tools of data collection:** The tool was divided into two sections. Section I comprises 5 questions related to demographic variables of the study. And section II Comprises of 25 questions to assess the lifestyle implications of Physical, psychological and socio-economic aspects

**Validity and Reliability of tools:** Research Tool was validated by the 9 experts from the field and the test of Cronbach's Alpha coefficient was used to test the reliability, it was  $r=0.86$  for assessment of lifestyle implication among the patient with selected comorbidity Post COVID.

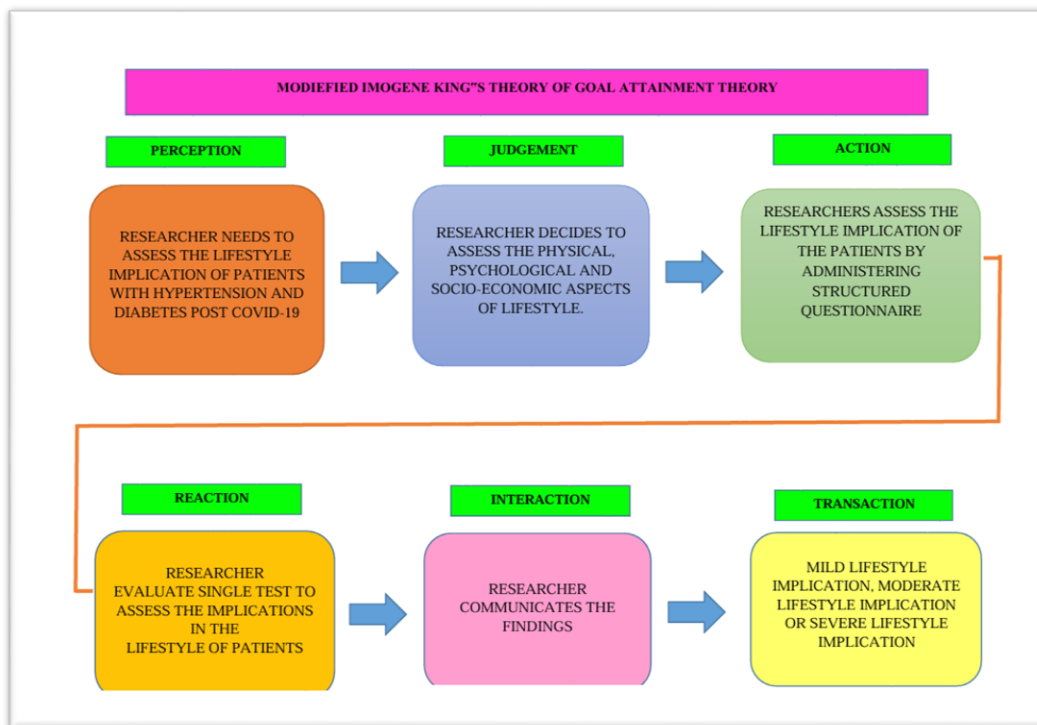
## **CONCEPTUAL FRAMEWORK**

According to Robson conceptual framework is defined as the system of concepts assumptions, expectations, beliefs and theories that support and informs your research is a key part of your design. According to Polit and Beck, a study that has its roots in a specified conceptual model is a conceptual framework. Conceptual frameworks or models are worn to give guidance and direct research studies, nursing practice and educational programs, but few researchers have described that the criteria used for selecting a conceptual framework for guiding the design of an educational intervention or intercession enlightenment. According to Bordage conceptual framework represents way of thinking about a problem or a study or way of representing how complex things are. As per Miles and Huberman, conceptual framework as communication and visual presentation that describes the main things to be considered or studied in either graphically or story form- it includes key factors, concepts, or variables and they assumed relationship among them.

This study is pinned on the Imogene Kings the Theory of Goal Attainment. The theory of goal attainment was developed by Imogene king in the early 1960s. It describes a dynamic, interpersonal relationship in which patient grows and develops to certain life goals. The theory explain that factors which can affect the attainment of goals are roles, stress, space and time. According to king a human being refers to a social being WHO is rational and sentient. He or she has the ability to perceive, think, feel, choose, set goals, select means to achieve goals and make decisions. Imogene King’s hypothesis of Goal Attainment focuses on how objectives of the customer are accomplished through the medical attendant customer exchanges. Nursing objective is to achieve, keep up, and recapture a solid state. Objectives are created through the correspondence and cooperation, and inside a social framework, customer objectives are accomplished featured by commonly set objectives among customers and nursing staff. Lord's model can be utilized as a structure for surveying and keeping a sound social framework that assists customers with accomplishing their expressed objectives (Parker, 2006). The Theory of Goal Attainment gives a way to deal with achieve the objective of access and personal satisfaction. The premise of The Theory of Goal Attainment of Imogene King is her philosophical position, which is, established in General Systems Theory, which manages the investigation of coordinated multifaceted nature as entire frameworks. Consistent advances in innovation and media transmission, and immense measure of data over-burden about the world occasions makes one's life complex. King’s Conceptual Systems consists the following elements that emphasis on Joint Goal Setting by Nurse and Client. In this study the elements that emphasis the joint goal setting is the researcher with adults.

<b>Concept</b>	<b>Definition</b>	<b>Application</b>
<b>Personal:</b> Individual, understand the self-perception own personal growth and development of client.	It refers to affecting by particular person.	Personal-Here is researcher who is conducting study to assess the Lifestyle Implication among patients with selected comorbidities post COVID-19
<b>Interpersonal:</b> interaction between two or more person of group.	It refers to interaction between peoples.	Interpersonal: researcher build an professional interpersonal with Patients

		by conducting study by administering structured questionnaire to assess the Lifestyle Implication among patients post COVID 19
<b>Perception:</b> person's representation of reality.	It refers to an ability to see here and become aware	Researcher needs to assess the Lifestyle Implication of patients with Hypertension and Diabetes post COVID-19
<b>Judgment:</b> opinions ,or conclusion	It refers to someone's opinion or conclusion.	Researcher decides to assess the Physical, Psychological and Socio-Economic aspects of Lifestyle.
<b>Action :</b> steps , activity	It refers to process of doing something	Researchers assess the lifestyle Implication of the patients by administering structured questionnaire
<b>Reaction:</b> done , reply,response	It refers to an action taken in response to something	Researcher evaluate the Implications in the lifestyle of patients with selected comorbidities
<b>Interaction:</b> communication	It refers to direct involvement with someone or something	Researcher communicates the findings
<b>Transaction:</b> purposeful interaction	It refers to purposeful interaction leading to the goal attainment	It refers to purposeful interaction leading to the goal attainment



## FINDINGS

The result of the data composed to assess lifestyle implications among the patients with selected comorbidities post COVID-19 was conducted understanding the aim of the study in consideration.

1. To assess the lifestyle implication among patients with selected comorbidities post COVID-19.
2. To find out the association between the lifestyle implication with selected demographic variables.
3. To find the correlation of lifestyle implications with selected comorbidities.

The result was divided in V Sections.

**Section I** that describes Details of Demographic Variables

**Section II** that describes Mean, Median, Mode and Standard Deviation

**Section III** Description of Lifestyle implications in patients with comorbidity

**Section IV** Shows Association of demographic variables with lifestyle implications among patient with selected comorbidity post COVID-19.

**Section V** describes Correlation of lifestyle implications with selected comorbidities.

**Section I: Demographic Details n=100**

**Table 1: Describes demographic details related to assessment of Lifestyle Implications among patients with comorbidity post COVID.**

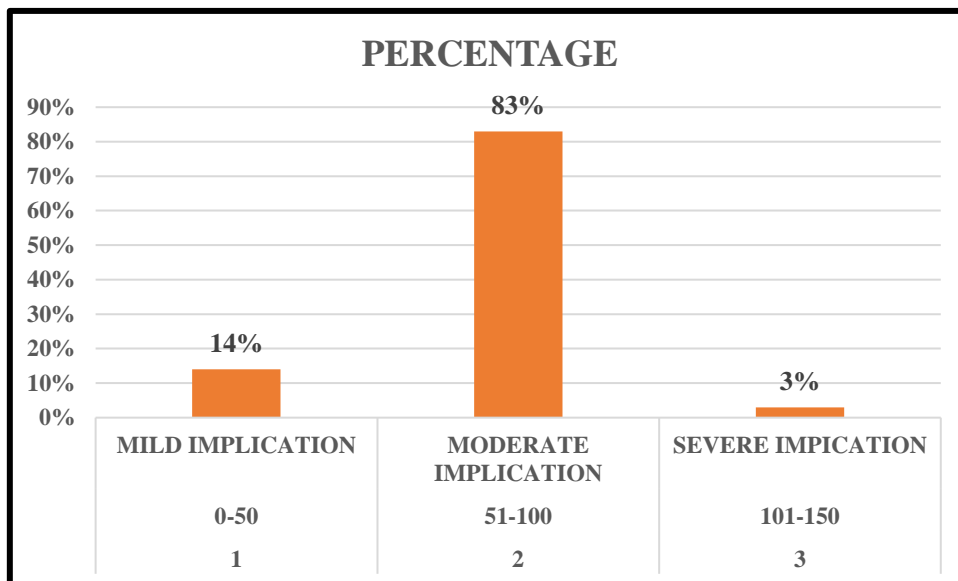
Sr. No	Demographic variables		Frequency	Percentage
1.	Age	30-40	21	21%
		41-50	28	28%
		51-60	28	28%
		60-above	23	23%
2	Gender	Male	49	49%
		Female	51	51%
3	Education	Uneducated	36	36%
		Secondary School	20	20%
		Higher Secondary Schooling	16	16%
		Graduate Post Graduate	28	28%
4	Occupation	Private Sector	34	32%
		Government Sector	22	22%
		Self-Employed	22	22%
		Home Maker	22	22%
5	Comorbidity	Hypertension	26	26%

		Diabetes Mellitus	42	42%
		Both	32	32%
<b>6</b>	Family History of Comorbidity	Yes	60	60%
		No	40	40%
<b>7</b>	Area of admission during COVID	Ward	63	63%
		ICU	37	37%
		Quarantine Centre	00	00
<b>8</b>	Post COVID period	1 Week	00	00
		2 Week	00	00
		3 Week	35	35%
		4 Week and Above	65	65%

**Section II-** Mean, Median, Mode and Standard Deviation

	<b>N</b>	<b>Range</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Tool</b>	<b>100</b>	<b>60</b>	<b>104</b>	<b>62.61</b>	<b>11.853</b>

**Section III-** Description of Lifestyle implications in patients with comorbidity



**Figure 1:** Show the statistical data related to the degree to which lifestyle has been Implicated among the patients with comorbidity.

**Section IV:** Association of demographic variables with lifestyle implications **N=10**

**Table 2:** Shows the statistical data about association of demographic variables with lifestyle implications among patient with selected comorbidity post COVID-19

Sr. No.	Demographic Variables	Calculated Value	Tabulated Value	Degree Of Freedom	Significance
1.	Age* Lifestyle Implication	1.828	12.59	6	NS
2.	Gender* Lifestyle Implication	5.168	5.99	2	NS
3.	Education* Lifestyle Implication	8.837	12.59	6	NS
4.	<b>Occupation* Lifestyle Implication</b>	<b>16.900</b>	<b>12.59</b>	<b>6</b>	<b>NS</b>
5.	Comorbidity* Lifestyle Implication	5.715	9.49	4	NS
6.	Family History of Comorbidity* Lifestyle Implication	0.195	5.99	2	NS
7.	Area of admission* Lifestyle Implication	2.803	5.99	2	NS

8.	Post COVID Period* Lifestyle Implication	2.071	5.99	2	NS
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**Section V:** Correlation of lifestyle implications with selected comorbidities.

**Table 3: Depicts the data regarding Correlation of lifestyle implications with selected comorbidities.**

Variables	Mean	SD	R Value	P Value	Remark
Lifestyle	62.61	11.853	-0.036	>00001	Strong Negative Correlation
Comorbidity	2.06	0.763			

## DISCUSSION

This study aimed to assess the Lifestyle Implication among the patients with selected comorbidity post COVID from the selected areas of Pune city. Thus, the data was collected from the participants and investigation was done to find the result.

### Description of Lifestyle Implication among the patients with comorbidity post COVID.

Figure 1: Data describes the details related to the degree to which lifestyle has been Implicated among the patients with comorbidity. The parameters measured to assess the lifestyle Implication were: Physical aspects- to understand the physical changes in the patient's body after recovery from COVID-19 particularly the patients with underlying comorbidity, Psychological Aspects- to assess what are the issues that patient has underwent personally and family wise post COVID, Socio-Economic Aspect- to assess what were the challenges that patient faced after his/her recovery. The analysis says that lifestyle implication towards the above points was mild in 14% patient, moderate in 83% patients and severe in 3% of patients.

### Description of Association of demographic variables with lifestyle implications among patient with selected comorbidity post COVID-19

Table 2: Shows the facts and figures about association of demographic variables with lifestyle implications among patient with selected comorbidity post COVID-19. The tabulated value is greater than that of the chi square value of all except Occupation. Hence, Lifestyle Implication

was found to have significant association with the occupation of total population and the first hypothesis is accepted.

### **Findings related to Correlation of lifestyle implications with selected comorbidities**

Table 3: Depicts the data regarding correlation of lifestyle implications with selected comorbidities. It indicates that there is strong negative correlation between lifestyle implication and selected comorbidity. Here, we reject the hypothesis of correlation.

### **CONCLUSION**

The overall study result indicates that there is a moderate changes in lifestyle of a patient after COVID-19 particularly in the patients with selective comorbidity such Hypertension, Diabetes or both. Most of the patient have reported to have increased sign and symptoms of weakness that comparatively makes them incapacitate to perform the activity than earlier. Additionally, patients have also reported socio-economic crisis during and post COVID. The Current study recommends to build proactive measures to overcome and prevent such implication Post COVID in the patients with selective comorbidity.

**Conflict of Interest:**NA

**Source of Funding:**There is no other financial support for the study. The study was fully funded by author.

**Ethical Clearance:**Ethical permissions of the study taken from Symbiosis College of Nursing ethical committee. Consent was taken from the Patients from selected areas of Pune city. Details given to the participants regarding the data collection procedure and the information was only used for study purpose and the confidentiality was maintained.

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