

COVID-19 PANDEMIC AND CHANGES IN LIFESTYLE BEHAVIOURS: AN EMPIRICAL STUDY

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Abstract

The role of demographic variables (Gender; Age; Education; Nature of Work) as predictors of lifestyle behaviour changes during the outbreak of Covid-19 pandemic is explored. The data was collected through a structured questionnaire which was tested for its reliability and validity through Cronbach's Alpha. Sample comprised of 96 male and 62 female Indian respondents of different age groups. Standardized measures (Percentages; Pearson's Correlation; Independent Samples t-test; One way ANOVA) have been employed to assess the constructs. Results of the study are expected to present a general view of the people of India with regard to the changes in their lifestyle behaviours; to find out how the Indians are coping with the covid 19 and lockdown situations; and would aid in the assistance of people to live in covid-19 crisis, and thereafter.

Keywords: Demographic, Predictors, Lifestyle Behaviour Changes, Outbreak, Covid-19 Pandemic.

INTRODUCTION

A significant increase was found in the stress, anxiety, and depressive symptoms during the lockdown period of covid-19; where females were more adversely affected with regard to increase in psychological outcomes; and a greater degree of respondents' resilience was linked to reduced levels of stress, anxiety and depressive symptoms (Gopal, AJ, & Subramanyam, 2020). With respect to the linkage of covid 19 and consumer behaviour, it was felt that people are expected to adopt up-to-date technologies which will ease work, study and consumption in a more convenient way (Sheth, 2020). Nearly all those sectors of the economies which are dependent on tourism are adversely affected in the pandemic because of intersectoral linkages, plus the female counterpart owing to their high segment in the tourism industry are expected to be impacted disproportionately (United Nations Conference on Trade and Development, 2020). The roundtable members totally settled on ability of

digital infrastructure companies to boost economic as well as social resilience during covid-19 crisis (ITU, 2020). The effect of seven selected scenarios of the pandemic on financial markets and macroeconomic outcomes was assessed (McKibbin & Fernando, 2020). Among the national economies, the top competitive sub national ones were discovered to be comparatively less resilient to the second wave of covid-19 (Gupta & George, 2021). A significant causality was observed from measures of the spread of covid 19 pandemic to geopolitical risks (Wang & Li, 2020). In relation to the lifestyle behaviour under study which were physical activity, eating behaviour, perceived stress as well as self-rated health, socio-demographic variables i.e., gender, mother tongue and educational level of the parents of respondents were the major predictors (Schmidt, 2012).

The above-mentioned literature makes it evident that though many researches have been undertaken to examine the financial, economic

and geo- political impacts of Covid-19, very few of them tried to assess its influence on the routine lifestyle changes of the people of India. The present study is an attempt to explore the changes in the lifestyle behaviours after the outbreak of Covid- 19 pandemic among the general population in India. In particular, the key objectives of the present study are as follows:

- To develop a standardized tool to evaluate the changes in lifestyle behaviour due to covid-19 pandemic outbreak.
- To identify the changes in lifestyle behaviours of people of India due to covid-19 pandemic outbreak.
- To discuss the influence of selected individual demographic variables (Gender; Age; Education; Nature of Work) on lifestyle behaviour changes.

In view of the above stated objectives, following hypotheses have been developed and tested for deriving relevant conclusions:

H01: There is no significant difference in changes in lifestyle behaviours on the basis of gender.

H02: There is no significant difference in changes in lifestyle behaviours on the basis of age.

H03: There is no significant difference in changes in lifestyle behaviours on the basis of education.

H04: There is no significant difference in changes in lifestyle behaviours on the basis of nature of work.

Database and Research Methodology

The present study is based on primary data collected from 158 respondents belonging to different cities of India. An online survey was conducted through a pretested, structured questionnaire which was created and designed with the help of Google Forms. The data was collected between the months of May and June

2020. A convenience random sampling technique was used for the study.

The questionnaire comprised of six demographic variables i.e., name, gender, age, marital status, education and nature of work. Further, the regarding changes in the lifestyle behaviour of people, owing to the outbreak of Covid-19 pandemic, were sought on a 5- point Likert scale, ranging from strongly disagree to strongly agree. The reliability was estimated using Cronbach's alpha. In order to test the influence of demographic variables on the lifestyle behaviour changes, t-test and ANOVA were used.

Data Analysis and Interpretation

Table 1 presents the demographic characteristics of the sample 158 respondents belonging to different cities of India. From the gender demographic, it could be seen that out of 158, 62 were male respondents and 96 were female respondents. Respondents belonging to age group of 26-40 years were highest in number i.e., 102 whereas those belonging to age of less than 25 years and 41-55 years were 27 and 22 respectively. 6 respondents were of age group of 56-70 years and only 1 respondent was above 70 years of age. Out of total respondents, around 65% were found to be married whereas 34% were unmarried and 2 respondents belonged to the 'other' category (widow). A total of 41.8% of the sample respondents were graduates followed by 34.7% postgraduates. Around 14.6% respondents possessed the degree of above postgraduates whereas 3.2%, 3.2% and 2.5% had completed education up to high school, intermediate and 'other' (doctorate and professional degree) category respectively. Taking into account the nature of work of sample respondents, 52 of them were self-employed, 43 were doing private service, 23 were in government service and remaining 40 were in 'other' category (18 housewives, 13 students, 2 tuition teachers, 2 unemployed, 2 working in self-finance college, 2 in semi-government job and 1 retired).

Table 1. The Demographic Profile of the Respondents

Demographics	Categories	Number	Percentage
Gender	Male	62	39.2
	Female	96	60.8
Age	Less than 25 years	27	17.1
	26-40 years	102	64.6
	41-55 years	22	13.9
	56-70 years	6	3.8
	Above 70 years	1	0.6
Marital Status	Married	102	64.6
	Unmarried	54	34.2
	Other	2	1.2
Education	High School	5	3.2
	Intermediate	5	3.2
	Graduate	66	41.8
	Postgraduate	55	34.7
	Above postgraduate	23	14.6
Nature of Work	Other	4	2.5
	Government Service	23	14.6
	Private Service	43	27.2
	Self-employed	52	32.9
	Other	40	25.3

Source: The author.

The covid-19 pandemic which was declared as a global epidemic by the World Health Organization (W.H.O.) on 11th March, 2020 brought about significant changes in the lifestyle behaviour of Indian population along with affecting their physical health (Rawat, Dixit, Gulati, Gulati, & Gulati, 2021). A structured questionnaire was used to record the responses of people comprising of 12 statements. The questionnaire was earlier used in a survey report but was slightly modified for the purpose of this study (Agarwal, 2020). The Pilot study of the instrument was done on 30 respondents and Cronbach's alpha was thereafter applied to assess the reliability of the scale. The value of Cronbach's alpha lies between 0 and, and if the value is above 0.7, it is considered satisfactory (Leung, 2001). The value was 0.842 in the present study shown in Table 2.

Table 2. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.859	11

Source: The author.

Table 3. Changes in Lifestyle Behaviours of Respondents

Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
I will work harder and will think about my future by saving more	4	2.5	5	3.2	20	12.7	68	43.0	61	38.6
I will give more priority to my family as compared to my work/ business	1	0.6	6	3.8	39	24.7	74	46.8	38	24.1
Health will be more important to me than my status	1	0.6	1	0.6	8	5.1	61	38.6	87	55.1
I will prefer a simple lifestyle over a luxurious one	4	2.5	11	7.0	27	17.1	62	39.2	54	34.2
I will not consider money as a parameter of success	3	1.9	17	10.8	30	19.0	72	45.6	36	22.8
I will give more	4	2.5	3	1.9	5	3.2	48	30.4	98	62.0

importance to humanity than religion/ caste										
I think online shopping is much safer than buying from shops in a traditional way	16	10.1	42	26.6	43	27.2	39	24.7	18	11.4
I will strictly follow a vegetarian diet from now on	12	7.6	23	14.6	20	12.7	36	22.8	67	42.4
I will prefer homemade food rather than restaurant food	4	2.5	8	5.1	29	18.4	60	38.0	57	36.1
I will avoid going to foreign countries in the nearby future for vacations	4	2.5	14	8.9	24	15.2	51	32.3	65	41.1
I will avoid going to other tourist places in my own country for sometime	4	2.5	9	5.7	31	19.6	77	48.7	37	23.4
Buying a health insurance for me and my family will be my utmost priority	2	1.3	2	1.3	23	14.6	64	40.5	67	42.4

Source: The author.

The responses have been analyzed and summarized in Tables 5 and 6.

Gender and Changes in Lifestyle Behaviours

H01: There is no significant difference in changes in lifestyle behaviours on the basis of gender.

For the purpose of testing the null hypothesis, Independent Samples Test has been applied.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
MeanAg	Male	62	3.83	.63	.08
	Female	96	4.05	.40	.04

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		Sig.		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Mean Ag	Equal variances assumed	.02		-2.68	156	.01	-.219	.08	-.38	-.06
	Equal variances not assumed			-2.44	92.73	.02	-.219	.09	-.39	-.04

Table 6 reveals that p value is less than 0.05 when equal variances not assumed (0.02). Since p value is less than 0.05, the null hypothesis can be rejected at 5% level of significance. Hence it can be concluded that there is significant difference between male and female with regard to the changes in their lifestyle behaviours. Based on the mean score, it is found that the mean agreement of females

with regard to their lifestyle behaviours changes is more than that of males. The null hypothesis can be rejected as there is significant difference in the opinions on changes in lifestyle behaviours on the basis of gender.

Age and Changes in Lifestyle Behaviours

H02: There is no significant difference in changes in lifestyle behaviours on the basis of age.

For the purpose of testing the null hypothesis, One- way ANOVA has been applied. The responses have been analyzed and summarized in Tables 7, 8 and 9 respectively.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 25 years	27	3.83	.46	.09	3.64	4.01	2.92	5.00
26-40 years	102	3.97	.54	.05	3.86	4.07	1.00	5.00
41-55 years	22	4.14	.46	.09	3.93	4.34	3.17	5.08
56-70 years	6	4.01	.26	.10	3.74	4.28	3.83	4.50
Above 70 years	1	3.25	3.25	3.25
Total	158	3.97	.51	.04	3.88	4.04	1.00	5.08

Levene Statistic	df1	df2	Sig.
.946 ^a	3	153	.42

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.69	4	.42	1.63	.17
Within Groups	39.70	153	.26		
Total	41.39	157			

A one- way ANOVA was performed to compare the perceptions of different age group of people with regard to the changes in lifestyle behaviours as shown in Table 9. An analysis of variance showed that influence of age group of people on their lifestyle behaviours changes was insignificant, $F(4, 153) = 1.63$, $p = 0.17$. Since p value is more than 0.05, the null hypothesis can't be rejected at 5% level of significance. Hence there is no significant difference in the opinions of people of different

age groups for the changes in lifestyle behaviours.

Education and Changes in Lifestyle Behaviours

H03: There is no significant difference in changes in lifestyle behaviours on the basis of education.

For the purpose of testing the null hypothesis, One- way ANOVA has been applied. The responses have been analyzed and summarized in Tables 10, 11 and 12 respectively.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
High School	5	3.87	.50	.22	3.25	4.48	3.25	4.50
Intermediate	5	4.05	.44	.20	3.50	4.59	3.50	4.50
Graduate	66	3.95	.53	.07	3.82	4.08	2.83	5.00
Post Graduate	55	3.96	.57	.08	3.80	4.11	1.00	5.08
Above Post Graduate	23	4.00	.39	.08	3.83	4.16	3.25	4.75
Other	4	4.10	.17	.09	3.83	4.37	3.92	4.25
Total	158	3.97	.51	.04	3.88	4.04	1.00	5.08

Levene Statistic	df1	df2	Sig.
.81	5	152	.55

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.20	5	.04	.15	.98
Within Groups	41.19	152	.27		
Total	41.39	157			

The results of one- way ANOVA in Table 12 showed that influence of educational qualifications of people on their lifestyle behaviours changes was insignificant, $F(5,$

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Government Service	23	4.05	.48	.10	3.84	4.26	3.08	5.00
Private Service	43	4.02	.39	.05	3.90	4.15	3.25	4.75
Self employed	52	3.90	.66	.09	3.71	4.08	1.00	5.08
Other	40	3.93	.42	.06	3.79	4.06	2.83	5.00
Total	158	3.96	.51	.04	3.88	4.04	1.00	5.08

Levene Statistic	df1	df2	Sig.
1.539	3	154	.207

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.61	3	.20	.76	.52
Within Groups	40.78	154	.27		
Total	41.39	157			

An analysis of variance showed that influence of people's nature of work on their lifestyle behaviours changes was insignificant, $F(3, 154) = 0.76$, $p = 0.52$. Since p value is more than 0.05, the null hypothesis can't be rejected at 5% level of significance. Hence there is no significant difference of nature of work of people on their opinions for changes in their lifestyle behaviours.

The study leads to the conclusion that females, in comparison to males agree more that they

152) = 0.15, $p = 0.98$. Since p value is more than 0.05, the null hypothesis can't be rejected at 5% level of significance. Hence there is no significant difference in the opinions of people of different educational level on changes in their lifestyle behaviours.

Nature of Work and Changes in Lifestyle Behaviours

H04: There is no significant difference in changes in lifestyle behaviours on the basis of nature of work.

For the purpose of testing the null hypothesis, One- way ANOVA has been applied. The responses have been analyzed and summarized in Tables 13, 14 and 15 respectively.

will have changes in their lifestyle behaviours in the future and rest all age groups, educational qualifications and nature of work of people have similar responses as to the changes in their lifestyle behaviours.

References

- [1] Agarwal, D. P. (2020). Changes in Lifestyle and Buying Habits of people after the Corona Disease Threat is Over. A survey report, Rakshpal Bahadur Management Institute, Bareilly.
- [2] Gopal, A., AJ, S., & Subramanyam, M. (2020). Dynamics of psychological responses to COVID-19 in India: A longitudinal study. PLoS ONE, 15(10). Retrieved from <https://doi.org/10.1371/journal.pone.0240650>
- [3] Gupta, S., & George, A. (2021, May 25). COVID-19 Resilience Analysis: Are the competitive sub- national economies of India resilient? Research Paper # 08-2021,

- Asia Competitiveness Institute Research Paper Series, 1-13.
- [4] ITU. (2020). Economic Impact of COVID-19 on Digital Infrastructure. Report of an Economic Experts Roundtable organized by ITU, Switzerland. Retrieved from itu.int/en/ITU-D/Conferences/GSR/2020/Documents/GSR_20_Impact-COVID-19-on-digital-economy_DiscussionPaper.pdf
- [5] Leung, W. C. (2001). Statistics and evidence based medicine for examinations. Petroc Press.
- [6] McKibbin, W., & Fernando, R. (2020, March 2). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. 1-43. Retrieved from [brookings.edu/wp-content/uploads/2020/03/20200302_COVID19.pdf](https://www.brookings.edu/wp-content/uploads/2020/03/20200302_COVID19.pdf)
- [7] Rawat, D., Dixit, V., Gulati, S., Gulati, S., & Gulati, A. (2021, January 13). Impact of COVID-19 outbreak on lifestyle behaviour: A review of studies published in India. *Diabetes & Metabolic Syndrome*, 15(1), 331-336. doi:10.1016/j.dsx.2020.12.038
- [8] Schmidt, M. (2012, May 15). Predictors of Self-Rated Health and Lifestyle Behaviours in Swedish University Students. *Global Journal of Health Science*, 4(4). doi:10.5539/gjhs.v4n4pl
- [9] Sheth, J. (2020, September). Impact of Covid-19 on consumer behaviour: Will the old habits return or die? *J Bus Res*, 280-283. doi:10.1016/j.jbusres.2020.05.059
- [10] United Nations Conference on Trade and Development. (2020). Covid-19 and Tourism: Assessing the economic consequences. Retrieved from unctad.org/system/files/official-document/ditcinf2021d3_en_0.pdf