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Role of Physical Education and Sports towards Changing Life Styles in India

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Abstract

India is experiencing a fast pace of socio-economic development and its population is passing through a rapid change in its life styles. Global exposures through media, rapid urbanization and industrialization coupled with the demand for work and global competition has expanded the schedule of work and reduced considerably the period for sports, leisure and socialization. As a consequence, there is a remarkable shift in the life styles of people. The stress caused share risk factors similar to prolonged exposure to three modifiable lifestyle behaviors' such as smoking, unhealthy diet, and physical inactivity. As a result, there is an increasing incidence of chronic diseases specially heart disease, stroke, diabetes, obesity, metabolic syndrome chronic obstructive pulmonary and some types of cancer. Because these diseases are strongly associated with risk factors or behaviors, such as physical inactivity, unhealthy diet, and tobacco use, they are largely preventable. Yet, the medical system in India continues to be oriented towards treating illness and disease, rather than prevention or wellness, and the incidence and prevalence of lifestyle diseases continue to grow. According a report from W H O, 61 percent of all deaths and 49 percent of the global burden of disease were attributable to such life styles. It is expected that by 2030 the proportion is expected to reach 70 percent and global burden of disease by 56 percent.

The study is based on the sample survey conducted on the 384 patients suffering from chronic diseases, their life style, physical activity and sports, recreation and diet patterns. Fieldwork was conducted in prominent hospitals of Meerut City such as LLRM Medical College and Hospital, Lokpriya Hospital and Anand Hospital during May and June 2019.

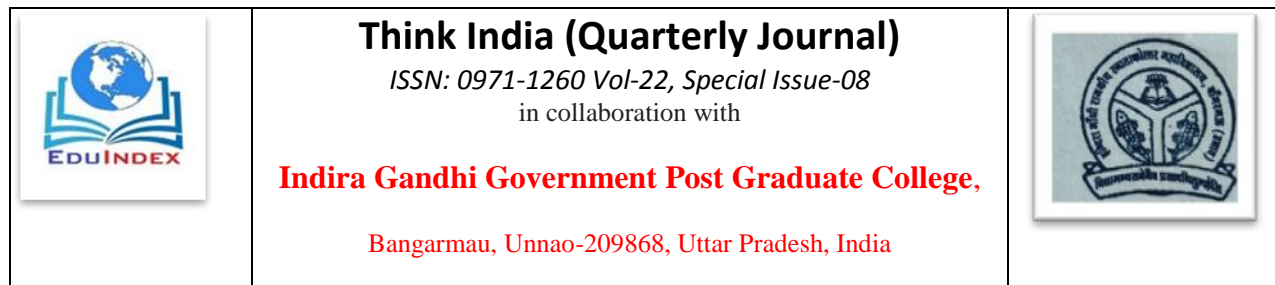
The combination of four healthy lifestyle factors such as maintaining a healthy weight, exercising regularly, following a healthy diet, and not smoking seem to be associated with as much as an 80 per cent reduction in the risk of developing the most common and deadly chronic diseases. Therefore, effective public health measures are urgently needed to promote physical activity and improve the health. The individual action for physical activity is influenced by the environment, sports and the recreational facilities. Coordination is required among sectors of health, sports education and culture. Moreover, media, information, society and system can support to improve the life style.

Key words: *Life style, chronic diseases, physical activity, global competition, sports and the recreational facilities.*

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Introduction:

With the pace of modernization, life style of a large section of the Indian society is passing through change from a traditional way of life; where time for leisure, physical activity and sports

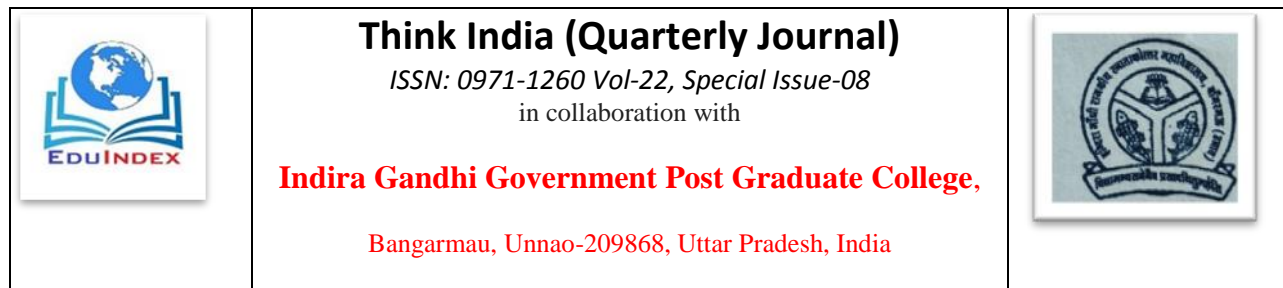


was comparatively more; to a modern way of life; where time for sports and physical activities have been minimized due to ever increasing work load, work pressure and stresses mounted through target oriented achievements. As a consequence, there is an apparent increase in the sickness and disease orientation leading to demotivation and sharp decline in work efficiency and achievements. Present study is an attempt to investigate into the causes and effects of changing life styles on the overall status of health of an individual. To achieve the objective a random survey in three hospitals of Meerut was conducted during May- June 2019. Patients with chronic diseases were interviewed for their routine of work, life styles and opinions towards sports and physical education towards maintaining work efficiency and good health. The study area, Meerut City, is one of the fastest growing cities in India and is known for its richness, due to its advanced farming background, agro-industries and service sectors; and proximity to National Capital, Delhi and a hub of industries and companies, NOIDA.

The study is cross sectional in nature but it has made adequate longitudinal references to literature survey to supplement the research and findings.

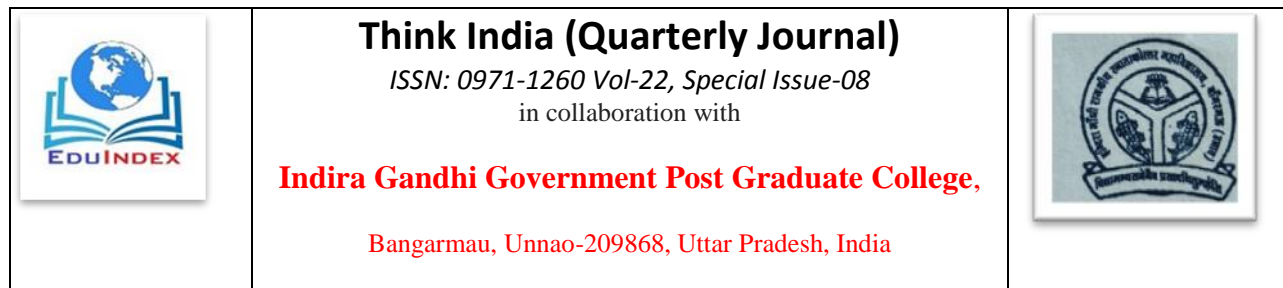
2- Review of the literature:

a- Global scenario: There are several studies undertaken by individual researchers, in addition, to institutional researches conducted on the life styles and associated health risks. Note worthy among these, are the research works conducted by Murray et al. (1990 and 1996)⁷, Ford et.al (2009)⁴, and King et.al (2009)⁵. Murray in his study tried to project the prospects of chronic diseases for 2030. In a study conducted by W H O (in 2003)⁸, chronic diseases are a major public health problem worldwide. Further, in 2005, the World Health Organization (WHO)⁹ estimated that 61 per cent of all deaths amounting to 35 million lives of the people and 49 per cent of the global burden of disease were attributable to chronic diseases. It is now estimated that by 2030, the proportion of total global deaths due to chronic diseases is expected to increase to 70 per cent and the global burden of disease to 56 per cent. The greatest Control and Prevention (Centers for Disease Control) have labeled lifestyle diseases both epidemic and pandemic increase is anticipated in the African, Eastern Mediterranean regions, South Asian and South East Asian nations. The World Health Assembly adopted a resolution in 2000 on the prevention and control of chronic diseases. World Health Organization (WHO) and the Centers for Disease and have identified the need for the development of new solutions to address this growing problem. A call to action has been issued for all health care providers to address these health concerns with their patients and clients in order to better manage health and health care costs. The World Health Assembly adopted a resolution in 2000 on the prevention and control of chronic diseases. Effective public health measures are urgently needed to promote physical activity and improve



health around the world. Kyayik et.al. (2010)⁶ studied influence of individual and combined health behaviors on total and cause specific mortality in men and women. The challenge of promoting physical activity is as much the responsibility of governments, as of the people. However, individual actions for physical activity are influenced by the work environment, living environment, sports and recreational facilities, and national policy. It requires coordination among many sectors, such as health, sports, education and culture policy, media and information, transport, urban planning, local governments, and financial and economic planning. The coordinated efforts of all stakeholders can bring about desired change in the life styles of the people and are capable of minimizing the risk of chronic diseases.

b- National scenario: The leading cause of morbidity and mortality in India is chronic, or non-communicable, diseases. The impact of chronic diseases on health and wellness can be significantly altered by individual health and behavior choices or modifications. Furthermore, the burden of chronic disease goes beyond health and the health care system and may influence an individual's wellness. As per a national report on non-communicable diseases, such as heart disease and stroke, cancer, diabetes, and lung disease, negatively affect the people. Because these diseases are strongly associated with risk factors or behaviors, such as physical inactivity, unhealthy diet, and tobacco use, they are largely preventable. Yet, the medical system in India continues to be oriented towards treating illness and disease, rather than prevention or wellness. Consequently, the incidence and prevalence of lifestyle diseases continue to grow and result in increased burden of disease. *Ayushman Bharat Yojana* or *Pradhan Mantri Jan Arogya Yojana (PMJAY)* or National Health Protection Scheme is a centrally sponsored scheme launched in 2018, under the Ayushman Bharat Mission of MoHFW in India¹. The scheme aims at making interventions in primary, secondary and tertiary care systems, covering both preventive and promotive health, to address healthcare holistically. It is an umbrella of two major health initiatives namely, Health and Wellness Centers and National Health Protection Scheme (NHPS). AB-PMJAY announced in September last year, is touted as the 'world's largest government funded healthcare programme' aimed at targeting over 50 crore beneficiaries. In her recent article, Neha Diwan³ reported that according to National Family Health Survey about 48 % of the respondents opined that quality of health care is poor. Similarly, about 45% reported that there was no nearby facility and 41% reported that waiting time was too long. Nearly 26% reported that timings of the facility were not convenient and about 15 % reported that health personnel's / officers were absent. According to a NSSO survey 2014, an average expenditure on hospitalization is worked out to be Rs. 18,268. However, hospitalization average cost in urban setup is worked out to be Rs. 24,436 and for rural setup Rs.14,935. As such, cost of hospitalization is quite high and in case of chronic diseases it is much more.



3-Methodology:

The data used in this exercise relates to the structured questionnaire served to the patients and responses obtained from them. The study is confined to 384 respondents (patients). Of the total patients, 29.95 percent (115) samples belonged to Anand Hospital, 33.60 percent (129) Lokpriya Hospital and remaining 36.45 percent (140) to LLRM Medical College, Meerut. In terms of ailments, heart disease and stroke accounted for 39.58 percent (152), cancer and related ailments 39.32 percent (151) and remaining 21.09 percent (81) cases related to obesity(refer table -1). Economic background of the patients (table-2) was analyzed to understand the nature of occupation and the pressure of work at the work places. In all, seven occupational categories were identified from the patients. The categories are company employees 17% (65); followed by farmers 16.80% (64); real estate developers 15.30% (60); business man 14.32% (55); transporters 14.06% (54), service men 13.70% (52); and daily wage earners 8.70% (34). Similarly, in terms of economic status, of the total patients 31.77 percent (122) were represented by each category of rich, middle and poor classes while remaining 4.68 percent belonged to the category very poor. The opinion survey was conducted regarding undertaking physical exercises, dietary patterns, attending recreational facilities to reduce the risk of developing chronic diseases (table-3). Opinion survey is based on Likert scale of weights in which first three options are negative (strongly disagree, disagree, and slightly disagree), while last three options are positive (slightly agree, agree, and strongly agree). The weights have been indicated against their categories.

4-Results and discussions:

a- Hospitalization: Questionnaire based field survey was conducted on a total of 384 patients for chronic diseases caused by a change in their life styles. The survey was carried out in three hospitals of Meerut City (table-1). Results reveal that LLRM Medical College and hospital is a more preferred choice for cancer and obesity cases of hospitalization. It could be because of lower cost of treatment and relatively more specialized medical staff here. However, in cases of treatment for heart diseases and stroke Lokpriya Hospital is a preferred choice. Anand Hospital ranks second in case of treatment for cancer disease but remains at third place in cases of heart disease and stroke and obesity. As such, in terms of overall hospitalization related to chronic diseases, LLRM Medical College and Hospital ranks first with a proportionate share of 36.45 percent (140 cases out of a total of 384 cases). Lokpriya Hospital accounts for a total share of 33.60 percent (129 cases out of total of 384 cases). Anand Hospital shares about 29.95 percent (115 cases out of a total of 384 cases). It is, thus, clear that public sector hospitals like LLRM are

still considered to be the most preferred choice for treatment for want of relatively better staff for treatment and being less costly.

Table- 1: Patients suffering from chronic diseases in selected hospitals of Meerut City during May and June 2019.

Serial Number	Heart disease & stroke		Cancer		Obesity		Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Anand Hospital, Meerut	43	28.30	51	33.78	21	25.92	115	29.95
Lokpriya Hospital, Meerut	58	38.15	45	29.80	26	32.10	129	33.60
LLRM Medical College, Meerut	51	33.55	55	36.42	34	41.98	140	36.45
Total	Frequency	152	151		81		384	100.00
	%	39.58	39.32		21.09			

Source: Based on field survey and authors own computation.

b- Occupational and economic background of the patients: The second field survey for this exercise was conducted to explore the occupational and economic backgrounds, of the patients, suffering from chronic diseases, due to a change in their life style. Results presented in table-2, revealed that the highest number of patients 65 (17%) were reported from those serving in different companies. It was closely followed by the farmers 64 (16.80%) and real state workers 60 (15.30%). The total profile (rich, middle and poor classes) of patients taken together with business background reveals that cases of cancer (47.27 percent) and obesity (30.90 percent) are relatively more in this group as compared to the cases of heart attack and stroke (21.81percent). Patients having occupational background of transport across all classes (rich, middle and poor) have the largest share of sickness related to heart attack and stroke (50 percent), followed by cancer (35.18percent) and obesity (21.81 percent). Patients with service background, across all classes, reveal that cancer is proportionately largest (40.30 percent) followed by heart disease and stroke (36.53 percent) and obesity (23.07 percent).

It is significant to note that chronic diseases are relatively more associated with persons with high income group compared to others. The occupational category of daily wage earners is represented by poor (47.05 Percent) and very poor (52.94 percent) income classes. Results revealed that cases of cancer and obesity are relatively more (35.29 percent in each case) among daily wage earners as compared to the proportion of heart diseases and strokes.

Table-2: Occupational structure and economic status of the patients with chronic diseases in Meerut City during May and June 2019.

Occupational Category	Economic status	Heart disease & stroke		Cancer		Obesity		Total		
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency		Percentage
								Individual	Group	
Company Employees	4-Rich	9	47.40	9	47.40	1	5.26	19	65	17.00
	5-Middle	6	27.27	9	40.90	7	31.83	22		
	6-Poor	9	37.5	11	45.43	4	16.7	24		
Farmers	16-Rich	9	47.37	6	31.58	4	21.05	19	64	16.80
	17-Middle	11	47.83	11	47.83	1	4.35	23		
	18-Poor	12	54.55	9	40.91	1	4.55	22		
Real Estate	10-Rich	9	47.37	6	31.58	4	21.05	19	60	15.30
		9	40.91	6	27.28	7	31.82	22		
	11-Middle	9	47.36	6	31.58	4	21.05	19		



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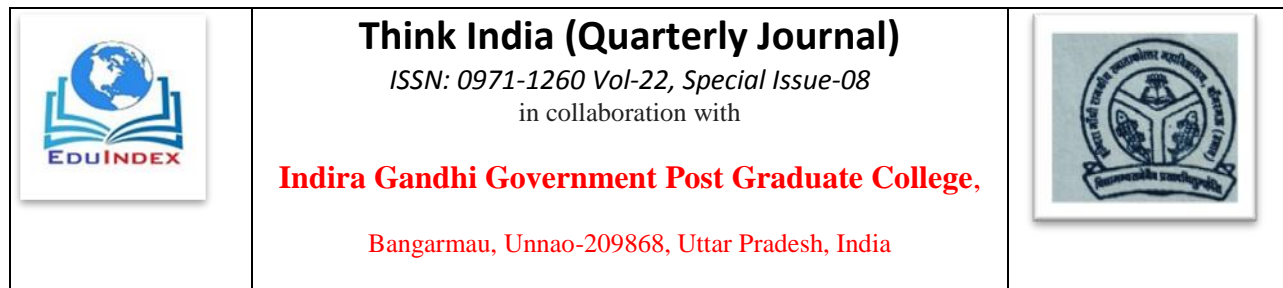
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	12-Poor									
Businessman	1-Rich	2	8.33	11	45.83	11	45.83	24	55	14.32
	2-Middle	4	23.52	9	44.44	4	23.52	17		
	3-Poor	6	42.86	6	42.86	2	14.28	14		
Transporters	7-Rich	9	45.00	9	45.00	2	10.00	20	54	14.06
		9	47.36	6	31.58	4	21.05	19		
	8-Middle	9	60.00	4	26.67	2	13.33	15		
		9-Poor								
Servicemen	13-Rich	11	52.38	6	28.57	4	19.05	21	52	13.70
	14-Middle	6	31.58	9	47.36	4	21.05	19		
	15-Poor	2	16.66	6	50.00	4	33.33	12		
Daily Wage earners	19-poor	4	25.00	6	37.5	6	37.5	16	34	8.70
		6	33.33	6	33.33	6	33.33	18		
Total	Frequency	151		151		82		384		100.00
	Percentage	39.32		39.32		21.36				

Source: Based on field survey and authors own computation.

C-Opinion survey to reduce the risk of developing chronic diseases: The third set of information, that were collected through field survey, from the patients suffering from chronic diseases, related to their opinions towards reducing the risk of developing such diseases. In all, 384 patients were asked to express their opinion in this regard. In case of reducing the risk of premature mortality, there were 45 out of 384 sample cases forming the second most significant group accounting for 11.72 percent of the total respondents. As much as 31 out of 45 respondents in this category opined that they disagree with the idea while 14 responded positively and were



in agreement that taken right physical exercises and sports, the risk of pre mature death could be minimized. The most important category of response was related to environment, sports and recreational facilities in public places. There were 40 respondents forwarding their opinion in this group. Out of the total 25 (62.5%) were in disagreement while remaining 15 (37.5%) were in agreement with this idea.

It is significant to note that unlike previous categories the rate of positive response in this case was higher than one third. Next in order of significance was the category of controlling the body weight. In case of conducting physical exercises, there were in all 39 responses, accounting for 10.16% of the total. While 69.23% respondents were in disagreement to this idea, there were 30.76 % respondents who were in agreement to this idea. Sporting activities to reduce the risk of cancer is yet another category of responses. There were, in all, 36 responses accounting for 9.38 percent of the total. Responses reveal that disagreement accounted for 61.11 percent while agreement accounted for 38.89 percent.

The proportion of agreement is increasing as we move down in response categories subsequently. Cessation of tobacco consumption recorded 34 responses accounting for 8.85 percent of the total. Of the total respondents nearly 80 percent respondents were in disagreement while about 20 percent were in agreement that cessation to tobacco consumption could reduce the risk substantially.

The category of eating low fat diet had a frequency of 30 respondents accounting for 7.81 percent of the total. About two third respondents were in disagreement while one third in agreement with the opinion. Similarly, eating a high fiber diet recorded a frequency of 26 respondents forming 6.76 percent of the total. While 18 out of 26 respondents in this category forming 69.23 percent were in disagreement to the idea; remaining 8 accounting for 30.78 percent respondents were positive and in agreement with the idea of physical exercises and sports to reduce the risk of such diseases.

The overall analysis reveals that pressures of work, tensions at work places and at domestic fronts have further compounded the level of stress on employees. To meet the target and adjust with the two diverging fronts of responsibilities; a majority of employees have developed a new life style to work over longer periods of time. It has minimized the scope of physical activities, exercises and games and sports. Once an individual is diagnosed for chronic diseases, Hence responses recorded are mostly negative because atmosphere and climate of physical exercises and sports are mostly absent at work places and the available time at the disposal of employees is also very little. Given the provision for physical exercises and sports, there would be a paradigm shift in the life styles of employees in different sectors of economy. As a consequence, the

reduction of chronic diseases will be reflected and the efficiency of employees to work will be improved further.

Table-3: Opinion survey to reduce the risk of developing chronic diseases.

Items of Response		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	Total	
								Freq uenc y	%
Reduce the risk of cardiovascular disease	F	11	14	8	6	4	6	49	12.76
	%	22.45	28.57	16.33	12.24	8.16	12.24		
Reduce the risk of Premature mortality	F	11	13	7	4	6	4	45	11.72
	%	24.44	28.89	15.56	8.89	13.33	8.89		
Learning to cope with stress	F	13	8	10	5	2	7	45	11.72
	%	28.89	17.78	22.22	11.11	4.44	15.56		
Environment, sports and recreational facilities in public places	F	12	9	4	6	6	3	40	10.42
	%	30.00	22.50	10.00	15.00	15.00	7.5		
Controlling body weight	F	13	9	7	4	4	3	40	10.42
	%	32.5	22.5	17.5	10.00	10.00	7.50		
Physical exercises	F	14	9	4	6	4	2	39	10.16

	%	35.90	27.08	10.26	15.38	10.26	5.13		
Reduce the risk of Cancer	F	9	6	7	6	2	6	36	9.38
	%	25.00	16.67	19.44	16.67	5.56	16.67		
Cessation of tobacco consumption	F	10	12	5	2	5	0	34	8.85
	%	29.41	35.30	14.71	5.89	14.71	0.00		
Eating low-fat diet,	F	9	4	7	6	2	2	30	7.81
	%	30	13.33	23.33	20.00	6.67	6.67		
Eating a high-fiber diet	F	7	4	7	4	2	2	26	6.76
	%	26.92	15.38	26.92	15.38	7.69	7.69		

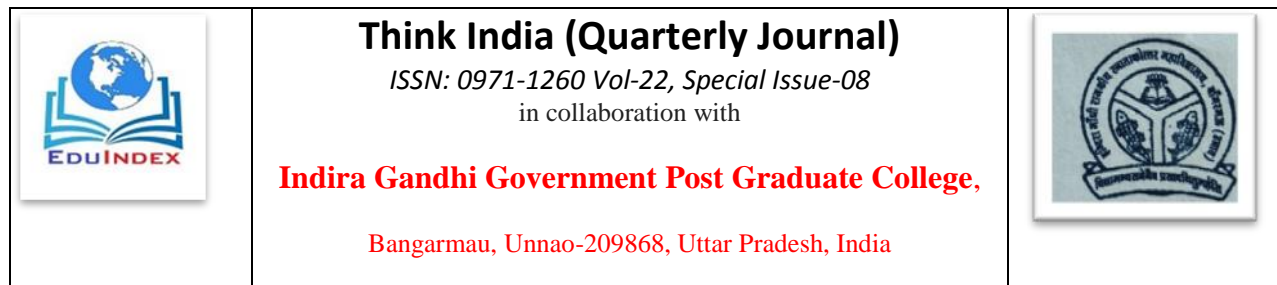
Source: Based on field survey and authors own computation. F -refers to the frequency in the table.

Conclusion: The foregoing analysis leads to conclude the following:

1- Workload and pressure to achieve targets within specified time have resulted in extra stresses and strains on employees. There is an apparent shift in the life style of employees with ever engaged, over worked, stressed and highly dependent on fast foods, alcoholism and drug addiction.

2-The shift in life style is partly responsible for increasing incidence of chronic diseases in cities and metropolitan centers. Meerut City with its close proximity to Delhi, Noida, and Gurugram; serves as a major hub for specialized hospital and health infrastructure. LLRM Medical College and Hospital continues to serve the largest number of patients with chronic diseases largely due to low cost of treatment and availability of specialized medical staff compared to Lokpriya and Anand Hospitals which are cost effective.

3-There is a high incidence of patients with heart diseases and stroke. Cancer and obesity are next serious ailments. Such ailments were found to be relatively higher among company employees, real estate workers, farmers and businessmen. Complete absence of infrastructures related to physical exercises and sports at work places further deteriorates the health condition.



4-About one third responses opined favorably and positively. Accordingly, given the opportunity, incentive and availability of infrastructure for physical exercises and sports; there are scopes for reducing the risk of chronic diseases and disease burden at work places.

5- Under the prevailing conditions, most of the patients have developed a negative opinion about bringing a change in their life style.

6-With the initiative and launch of Ayushman Bharat Yojana or Pradhan Mantri Jan Arogya Yojana (PMJAY) in 2018; there are positive indications of highly subsidized and reduced cost of treatment of diseases.

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