An assessment of lifestyle and weight status during COVID-19 pandemic among Raipur city's population

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Abstract:

The aim of this study was an assessment of lifestyle and weight status during COVID-19 pandemic among Raipur city's population. A cross-sectional descriptive survey method was conducted among 1000 sample sized for collection data. Chosen sample area was Raipur city and tools for collecting data were - Schedule, GPS TEST APP digital, weighing machine, Inch tape. Used GPS TEST App for tracking sample, with help of GPS Test collect data for survey, filled up the schedule. Results show that, all 1000 samples responded to the schedule. A Sedentary lifestyle results shows 504, (50.4(%) and physically active lifestyle – 496 (49.6%), Sleeping Habits - Less than 7 hours 85 (8.5%), 7 hours - 456 (45.6%), 7-9 hours- 143, (14.3%), 9 hours- 316 (31.6%). Weight Status of Subjects Based on Lifestyle Sedentary – Underweight - 205 (40.7) (61.2) Normal 259 (51.4) (43.5) Overweight -24 (4.8) (58.5) Obese 24 (4.8) (58.5) Class I - 12 (2.4) (75.0) Obesity Class III – 4 (0.8) (33.3). Physically Active lifestyle - Underweight 130 (26.2) (38.8) Normal weight - 337 (67.9) (56.5) overweight - 17 (3.4) (41.5) Obese - 4 (0.8) I (25.0) class- 8(1.6) (66.7). The conclusion of results suggested that the COVID-19 pandemic triggered a variety of lifestyle changes and physically active changes. Key words: lifestyle, weight status, covid-19.

Introduction: Coronavirus disease (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus -2 (SARS-CoV-2). The virus was first identified in December 2019, an outbreak of pneumonia caused by a novel coronavirus occurred in Wuhan,

the capital of centre china, and has been declared a public health emergency of international concern by the world health organization since January 2020. Later on, it continues to spread across the world and affect about 200,000 people worldwide immediately after its emergence.Covid-19 pandemic has changed lifestyles dramatically, with many people from home and having little contact with people other than family members. These changes have possible led to unhealthier lifestyle behaviours, nutritional habits, and mental health. COVID-19 is not only a deadly disease outbreak but also affects the mental, social activity, eating, sleeping and level of physical activity of the population. And, now WHO declared the people to take a vaccine to reduce the transmission burden of the virus.

Method and Material: This is a cross- sectional descriptive study based on a self-administered schedule. This Self-administered schedule was addressed to the Raipur (C.G.) population (Over 18 years of age). In this study total 1000 respondents were included (based on theirs work group). The study comprised a structural schedule Annexure that inquired demographic Information[Name, Age, Gender, Education ,Occupation, Family Income, Family Type, Family Member, House, Type of House] Anthropometric Measurements [Height, Weight, BMI, Circumference of waist, Circumference of Hip, WHR], Physical Examination [Eyes, Teeth, Gums, Skin, Hair, Nails, Lips] physical health problem[constipation, sugar, B.P Stomach-ache, Joint-pain, Deficiency of Vitamin-D, Deficiency of calcium, amoebiasis] Mental health problem [depression, stress, fatigue] dietary management[vegetarian, Non-vegetarian, Eggetarian, Jainy food, food frequency- once in a day, twice in a day, thrice in a day, and fourth times in a day, 24 hours recall] lifestyle habits[smoking habits- before and after lock down, sleep pattern- before and after lockdown, physical activity – before and after lockdown]. The survey was conducted from the 9 January 2022 to 21 July 2022. This survey was conducted in Raipur city with help of

GPS test Device. Present survey was conducted in totally agreement with ethical regulation. All participants were totally aware about the study requirements and were required to accept the data sharing and privacy consent form. Data are represented as a number and percentage in parentheses [%] for categorical variables or median.

Results and discussion

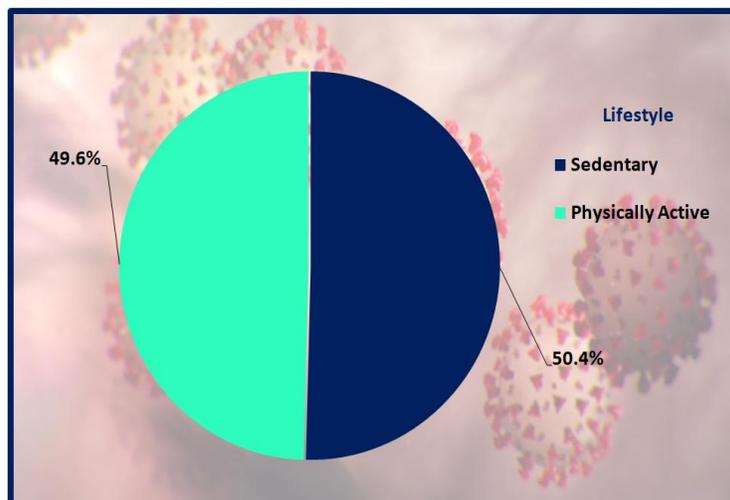The physical activity status of selected subjects is presented in table 01 and figure 06 respectively.

Table No. 01

Lifestyle of Selected Subjects

Lifestyle	Number	(%)
Sedentary	504	50.4
Physically Active	496	49.6
Total	1000	100.0

Figure 01

Percentage Distribution of Subjects Based on their Physical Activity Status

The data on lifestyle clearly shows almost equal percentage of subjects in sedentary and physically active categories of lifestyle. Other way around the lifestyle of approximately 50% subjects during COVID times was sedentary.

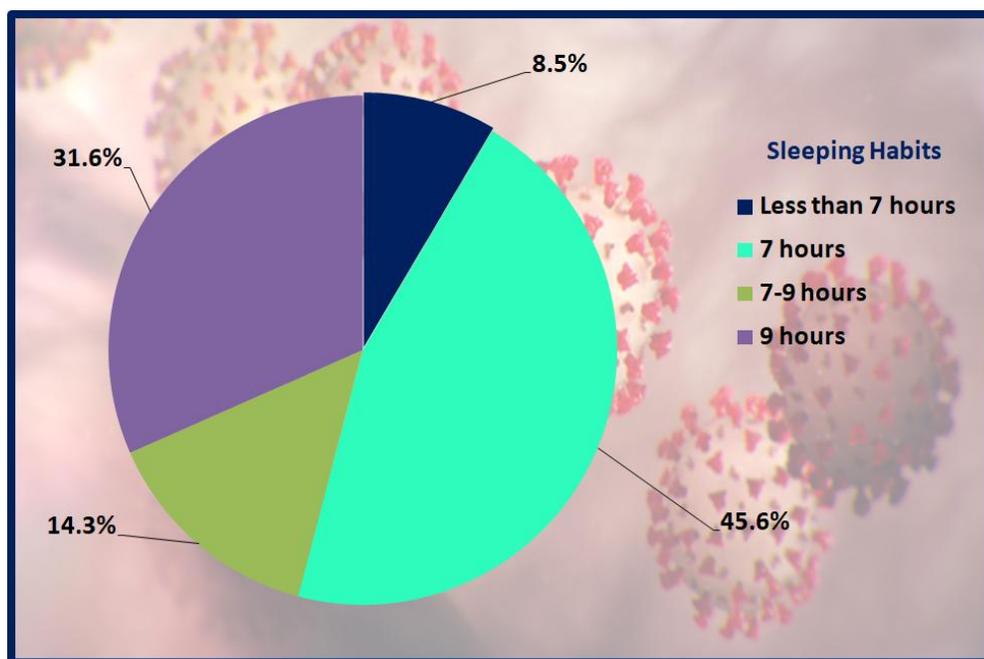The sleeping habits of selected subjects are presented in table 02 and figure 02 respectively**.**

Table No. 02

Sleeping Pattern of Selected Subjects

Sleeping Habits	Number	(%)
Less than 7 hours	85	8.5
7 hours	456	45.6
7-9 hours	143	14.3
9 hours	316	31.6
Total	1000	100.0

Figure 02

Percentage Distribution of Subjects Based on their Sleeping Habits

Smoking Habits: The surveyed data shows that only 02 subjects (0.2%) were smokers whereas the rest 998 (99.8%) denied being smokers.
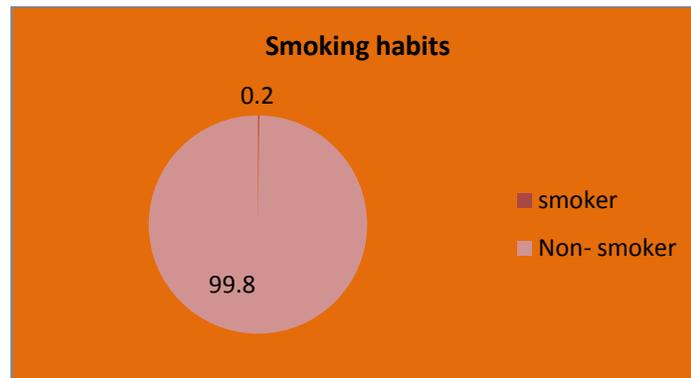
Table No. 03

Smoking habits of Selected Subjects

Smoking habits	Numbers	Percentage
Smoker	02	0.2%
Non- smoker	998	99.8%
Total	1000	100%

Figure -03

Percentage Distribution of Subjects Based on their Smoking Habits

Lifestyle and weight status:

To assess the impact of lifestyle on weight status of selected subjects a 2x3 table was prepared and the same is given in table 04.

Table No. - 04

Weight Status of Subjects Based on Lifestyle

Lifestyle	BMI Categories					Total N
	Underweight	**Normal**	**Overweight**	**Obese Class I**	**Obesity Class III**	
	N (%)	% (%)	N (%)	N (%)	N (%)	
Sedentary	205 (40.7) (61.2)	259 (51.4) (43.5)	24 (4.8) (58.5)	12 (2.4) (75.0)	4 (0.8) (33.3)	504 (100.0) (50.4)
Physically Active	130 (26.2) (38.8)	337 (67.9) (56.5)	17 (3.4) (41.5)	4 (0.8) (25.0)	8 (1.6) (66.7)	496 (100.0) (49.6)
Total N	335	596	41	16	12	1000
$\chi^2 = 33.46$, p<.01						

A perusal of table -04 gives following inferences: Out of 335 subjects in underweight category, 38.8% are physically active while 61.2% have sedentary lifestyle. Out of 596 subjects in normal weight category, 56.5% is physically active while 43.5% have sedentary lifestyle. Out of 41 subjects in overweight category, 41.5% is physically active while 58.5% have sedentary lifestyle. Out of 16 subjects in obese class I category, 25% is physically active while 75% have sedentary lifestyle. Out of 12 subjects in obese class III category, 66.7% is physically active while 33.3% have sedentary lifestyle. The reported $\chi^2 = 33.46$ p<.01 significant positive association between lifestyle and weight status of subjects during COVID-19.

Figure 03

Percentage Distribution of Subjects Based on BMI Categories and Lifestyle
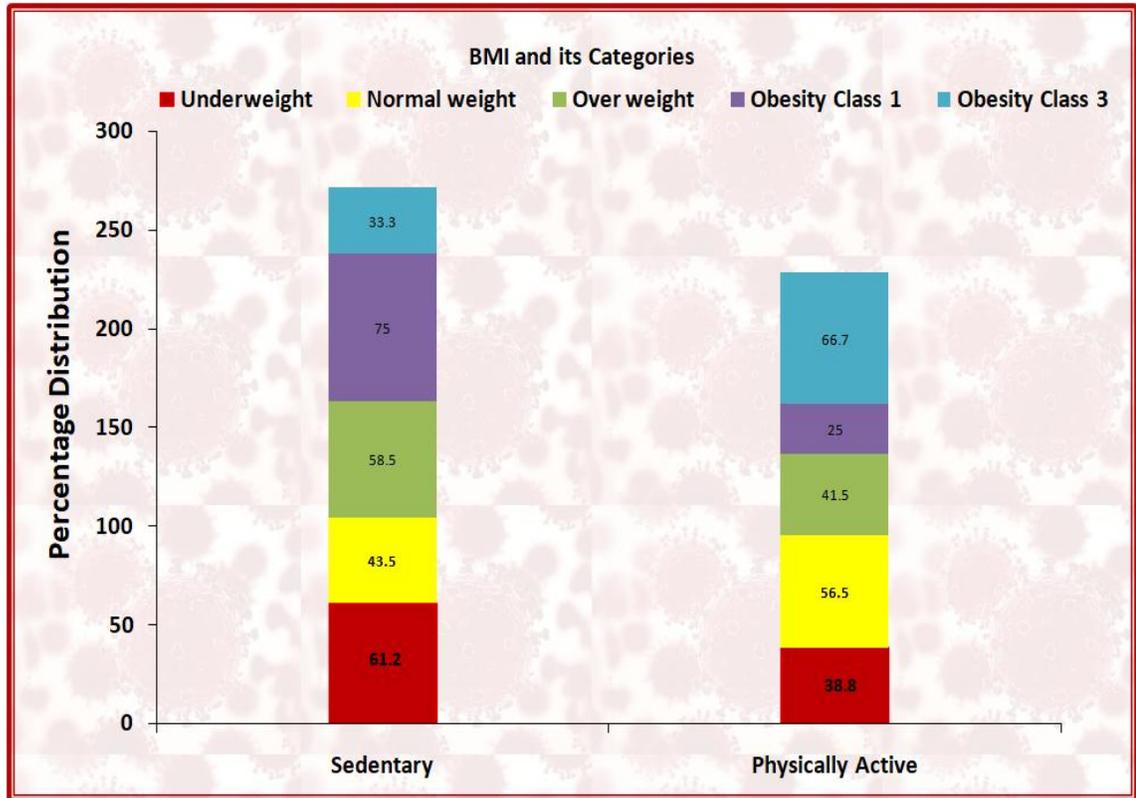
* **Conclusion:** It can also be concluded that maintaining proper dietary habits and regular physical activity is the key to managing weight during difficult times of COVID-19. Hence maintaining a healthy lifestyle and dietary habits are major indicators of weight status during the pandemic or even in disease-prone regions of India and are of considerable importance to managing the nutritional status of people **in such scenarios if need be:** The weight status of people of Raipur city during COVID-19 was not influenced by socio-demographics namely age and gender. The weight status of people of Raipur city during COVID-19 was significantly influenced by their job characteristics, educational status and income.

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