

FOOD HABITS CHANGES AND ITS EFFECT ON HEALTH OF PEOPLE OF VALSAD, GUJARAT DURING COVID-19 PANDEMIC

PATEL DHWANI MUKESHBHAI

(Assistant professor)

ABSTRACT

A new coronavirus emerged in Wuhan, China as a pandemic of acute respiratory syndrome in humans in December 2019. In India the virus COVID- 19 spread in February – March. Till from now [3rd September 2020] the total confirmed cases of corona are around 5.21 M. The Prime Minister of India Narendra Modiji declared complete lockdown of India in different phases from 25th March 2020 to 31 May 2020. Aside from more snacking, the pandemic has changed what people are eating, a higher percentage of people said that they were eating healthier than they usually do, as a result of the pandemic. And this was compared to a lower percentage of people who said that they were eating less healthy than usual. As related to COVID-19 people were taking the opportunity to be thinking more about what they were eating, perhaps. Cooking more at home tends to be a little bit healthier than the choices that we might make when eating out. The COVID -19 pandemic represents a massive impact on human health, causing sudden lifestyle changes, through social distancing and isolation at home, with social and economic consequences optimizing public health during this pandemic requires not only knowledge from the medical and biological sciences, but also of all human sciences related to lifestyle, social and behavior studies, including dietary habits and lifestyle.

KEYWORDS: COVID -19, Food habit change, people health, Valsad people

INTRODUCTION

The 2019 Coronavirus Disease or, as it is now called COVID-19, is a severe acute respiratory syndrome caused by SARS Corona Virus [SARS-COV-2]. It was supposed that in December 2019, SARS-COV-2 apparently transit from animals to humans at the Human Seafood market and rapidly spread from Wuhan city of Hubei, province of China, to the rest of the world. Due to growing case notification rates in International locations, on the 30th January 2020, the WHO Emergency Committee declared a global health emergency. After COVID-19 emerged some of our thoughts and behaviors around eating do appear to have changed. Most of the people cited were more concerned about their health and immunity. Since the pandemic outbreak people plan to eat more healthily. How people intend to do this varied, the most popular strategy was a plan to increase fruit intake, followed by increasing vegetable intake, followed by different medicinal plant intake, potentially due to perception from the public that these foods aid our immunity and health. Some unfavorable health results are also found during this period such as Obesity, people are eating more confectionery, people are eating more Cake/Biscuits, are drinking more alcohol, etc. The Corona Virus crisis is causing people to re-evaluate their diets because it has underlined. The link between food and health, most of the people of the world said they will make 'greater attempts' to eat and drink more healthily in the future as a result of their COVID-19 experience.

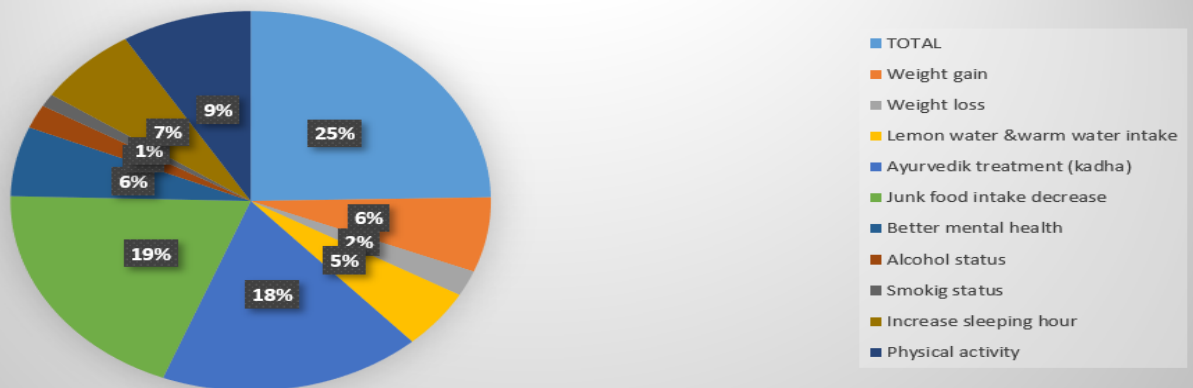
METHODOLOGY AND EXPERIMENTATION

Our study aimed to investigate the impact of the COVID-19 pandemic on eating habits and lifestyle changes among the Valsadian population aged ≥ 15 years. In this study total 1000 respondents were included (50% Men & 50% Women). The study comprised a structural questionnaire packet that inquired demographic information [age, gender, their weight before and after the pandemic, changes in their food habits, Ayurvedic treatment taken by them, changes intake junk food, Mental health before and after pandemic, their alcohol and smoking status, sleeping hours and physical activities]. The survey was conducted from the 3rd of June to the 26th of September 2020. This survey was conducted from the different Talukas of Valsad District. The study was conducted in full agreement with national and international regulations. All participants were fully informed about the study requirements and were required to accept the data sharing and privacy policy before participating in the study. Data are represented as a number and percentage in parentheses (%) for categorical variables or median.

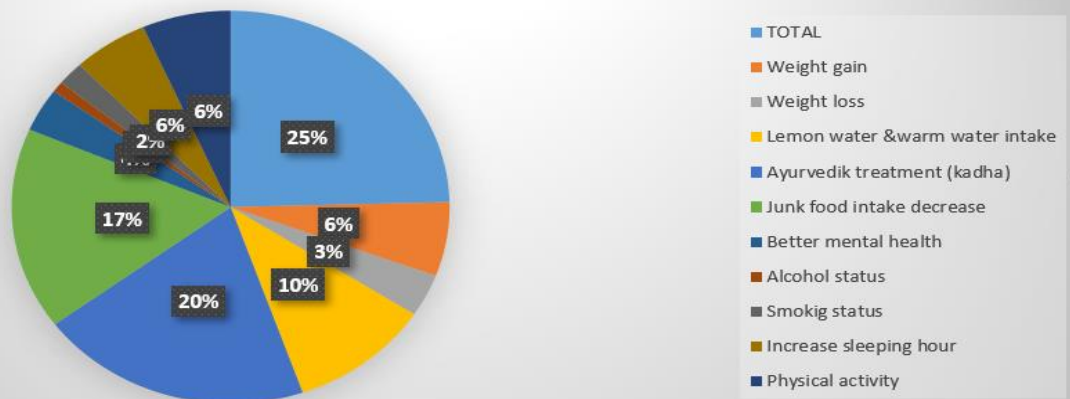
RESULTS

	A	B	C	D	E	F	G	H	I	J	K	L
1		TOTAL	Weight gain	Weight loss	Lemon water & warm water intake	Ayurvedik treatment (kadha)	Junk food intake decrease	Better mental health	Alcohol status	Smokig status	Increase sleeping hour	Physical activity
2												
3			129	44	102	358	394	120	41	22	138	177
4	MALE	500	25.80%	8.80%	21.00%	71.6	78.80%	24.00%	8.20%	4.40%	27.60%	35.40%
5			±1.34	±0.2	±2.3	±1.8	±2.5	±3.6	±4.2	±3.4	±2.7	±1.8
6			124	71	213	410	338	73	18	40	113	133
7	FEMALE	500	24.80%	14.20%	42.6	82.00%	67.60%	14.60%	3.60%	8.00%	12.00%	26.60%
8			±2.3	±3.1	±2.6	±1.8	±3.7	±1.2	±2.8	±3.2	±2.6	±4.2

MALE



FEMALE



A total of 1000 respondents have been included in the study, aged between 15 to 70 years [50% Males and 50% Females]. The perception of weight gain was observed in 25.8% in males of the population whereas weight gain observed in women was 24.8% of the population. It was observed that 84% of weight gain was observed in women under the age of 27. 8.8% weight was decreased observed in men population. 14.2% of the weight was decreased observed in women. 21% of the male population observed started drinking Lemon Water and Warm Water whereas 42.6% of the female population observed started drinking Lemon Water and Warm Water. 71.6% of the male population and 82% of the female population observed started drinking 'KADHA' [Ayurvedic Treatment] as an immunity booster. 78.8 % of the male population and 67.6% of the female population observed decreasing the intake of junk food. 24% of the male population and 14.6% of the female population were accepted that their mental health is better before the pandemic. 8.2% of the male population and 3.6% of the female population observed that they started or increased alcohol during the COVID-19 pandemic. 4.4% of the male population and 8% of the female population observed that they started or increased the habit of smoking during COVID- 19 pandemic. 12% of the male population and 27.6% of the female population observed an increase in their sleeping hours. 35.4% of the male population and 26.6% of

the female population of Valsad has increased their physical activities to gain immunity and strong health. The population group aged 18-30 years resulted in having a higher adherence to the Mediterranean diet when compared to the younger and the elderly population, 19% of respondents turned to Farmers or Organic, purchasing Fruits and Vegetables.

CONCLUSIONS

In this study, we have provided the data of the Valsadian population lifestyle, eating habits, adherence to the Mediterranean diet pattern, their Ayurvedic Treatment, Mental health, Alcohol, and Smoking status, Sleeping hours, and Physical activities pattern during the COVID-19 lockdown. In this study, it was observed that the weight of the Valsad population (male and female) was increased. Most of the people started drinking warm water, lemon water, and 'KADHA' (Ayurvedic Medicine) to boost their immunity. Most of the people decreased intake of junk food. Many people of Valsad said that their mental health was better before Corona. Few people of Valsad started or increased their alcohol and smoking habits. For better health and immunity most people started various physical activities. However, as the COVID-19 pandemic is ongoing, our data need to be confirmed and investigated in future more extensive population studies.

REFERENCES

- 1) Laura Di Renzo, Paola Gualtieri, Antonino De Lorenzo, Journal of Translational Medicine 18, an Italian survey, 2020
- 2) Wang C, Horby PW, Hayden FG, GAO GF. A novel coronavirus outbreak of global health concern. Lancet. 2020; 365:470–3.
- 3) Velavan TP, Meyer CG. The COVID-19 epidemic. Trop Med Int Heal. 2020; 25:278–80.
- 4) Abenavoli L, Cinaglia P, Luzzza F, Gentile I, Boccuto L. Epidemiology of coronavirus disease outbreak: the Italian trends. Rev Recent Clin Trials. 2020.
- 5) Moynihan AB, van Tilburg WAP, Igou ER, Wisman A, Donnelly AE, Mulcaire JB. Eaten up by boredom: consuming food to escape awareness of the bored self. Front Psychol. 2015; 6:369.
- 6) Yılmaz C, Gökmen V. Neuroactive compounds in foods: occurrence, mechanism and potential health effects. Food Res. 2020;128:108744
- 7) Rodríguez-Martín BC, Meule A. Food craving: new contributions on its assessment, moderators, and consequences. Front Psychol. 2015; 6:21.
- 8) Ma Y, Ratnasabapathy R, Gardiner J. Carbohydrate craving: not everything is sweet. Curr Opin Clin Nutr Metab Care. 2017; 20:261–5.
- 9) Wu C, Chen X, Cai Y, Xia J, Zhou X, Xu S, et al. Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus disease 2019 Pneumonia in Wuhan, China. JAMA Intern Med. 2020. .
- 10) Muscogiuri G, Pugliese G, Barrea L, Savastano S, Colao A. Obesity: the “Achilles heel” for COVID-19? Metabolism. 2020; 108:154251.
- 11) Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health. 2020;17:1729
- 12) Montemurro N. The emotional impact of COVID-19: from medical staff to common people. Brain Behav Immun. 2020.
- 13) Van Strien T. Causes of emotional eating and matched treatment of obesity. Rep: CurryDiab; 2018.
- 14) Evers Dingemans A, Junghans AF, Boevé A. Feeling bad or feeling good, does emotion affect your consumption of food? A meta-analysis of the experimental evidence. Rev: Neurosci. Biobehav; 201
- 15) Singh M. Mood, food and obesity. Front Psychol. 2014; 5:1–35.
- 16) Havermans RC, Vancleef L, Kalamatianos A, Nederkoorn C. Eating and inflicting pain out of boredom. Appetite. 2015; 85:52–7.
- 17) Muscogiuri G, Barrea L, Annunziata G, Di Somma C, Laudisio D, Colao A, et al. Obesity and sleep disturbance: the chicken or the egg? Crit Rev Food Sci Nutr. 2019; 59:2158–65.
- 18) Pugliese G, Barrea L, Laudisio D, Salzano C, Aprano S, Colao A, et al. Sleep apnea, obesity, and disturbed glucose homeostasis: epidemiologic evidence, biologic insights, and therapeutic strategies. Curr Obes Rep.

- 2020; 9:30–8. Crockett AC, Myhre SK, Rokke PD. Boredom proneness and emotion regulation predict emotional eating. *J Health Psychol.* 2015; 20:670–80.
- 19) Muscogiuri G, Barrea L, Aprano S, Framondi L, and Di Matteo R, and Laudisio D, et al. Sleep quality in obesity: does adherence to the mediterranean diet matter? *Nutrients.* 2020; 12:1364.
- 20) Engin AB, Engin ED, Engin A. Two important controversial risk factors in SARS-CoV-2 infection: obesity and smoking. *Environ Toxicol Pharmacol.* 2020.
- 21) Panahi S, Tremblay A. Sedentariness and health: is sedentary behavior more than just physical inactivity? *Front Public Heal.* 2018; 6:258.
- 22) Hauner H. Secretory factors from human adipose tissue and their functional role. *Proc Nutr Soc.* 2005; 64:163–9.
- 23) Dietz W, Santos-Burgoa C. Obesity and its implications for COVID-19 mortality. *Obesity.* 2020.
- 24) Di Renzo L, Gualtieri P, Romano L, Marrone G, Noce A, Pujia A, et al. Role of personalized nutrition in chronic-degenerative diseases. *Nutrients.* 2019; 11(8):1707.
- 25) De Lorenzo A, Bernardini S, Gualtieri P, Cabibbo A, Perrone MA, Giambini I, et al. Mediterranean meal versus Western meal effects on postprandial ox-LDL, oxidative and inflammatory gene expression in healthy subjects: a randomized controlled trial for nutrigenomic approach in cardiometabolic risk. *Acta Diabetol.* 2017; 54:141–9.
- 26) Soldati L, Di Renzo L, Jirillo E, Ascierio PA, Marincola FM, De Lorenzo A. The influence of diet on anti-cancer immune responsiveness. *J Transl Med.* 2018; 16(1):75.
- 27) Cani PD, Van Hul M. Mediterranean diet, gut microbiota and health: when age and calories do not add up! *Gut.* 2020.
- 28) We Are Social & Hootsuite. Digital 2020. Data Reportal. 2020.
- 29) Schröder H, Fitó M, Estruch R, Martínez-González MA, Corella D, Salas-Salvadó J, et al. A short screener is valid for assessing Mediterranean diet adherence among older Spanish men and women. *J Nutr.* 2011; 141:1140–5.
- 30) Jayawardena R, Sooriyaarachchi P, Chourdakis M, Jeewandara C, Ranasinghe P. Enhancing immunity in viral infections, with special emphasis on COVID-19: a review. *Diabetes Metab Syndr Clin Res Rev.* 2020; 14:367–82.
- 31) Brake SJ, Barnsley K, Lu W, McAlinden KD, Eapen MS, Sohal SS. Smoking upregulates angiotensin-converting enzyme-2 receptor: a potential adhesion site for novel coronavirus SARS-CoV-2 (Covid-19). *J Clin Med.* 2020; 9:841.
- 32) García OP, Long KZ, Rosado JL. Impact of micronutrient deficiencies on obesity. *Nutr Rev.* 2009; 67:559–72.
- 33) Childs CE, Calder PC, Miles EA. Diet and immune function. MDPI AG: *Nutrients*; 2019.
- 34) Costa de Miranda R, Di Renzo L, Cupertino V, Romano L, De Lorenzo A, Salimei C, et al. Secular trend of childhood nutritional status in Calabria (Italy) and the United States: the spread of obesity. *Nutr Res.* 2019; 62:23–31.
- 35) De Lorenzo A, Gratteri S, Gualtieri P, Cammarano A, Bertucci P, Di Renzo L. Why primary obesity is a disease? *J Transl Med.* 2019; 17:169.
- 36) Dhurandhar NV, Bailey D, Thomas D. Interaction of obesity and infections. *Obes Rev.* 2015; 16:1017–29.
- 37) De Lorenzo A, Romano L, Di Renzo L, Di Lorenzo N, Cennamo G, Gualtieri P. Obesity: a preventable, treatable, but relapsing disease. *Nutrition.* 2020; 71:110615.
- 38) Nappi F, Barrea L, Di Somma C, Savanelli MC, Muscogiuri G, Orio F, et al. Endocrine aspects of environmental “obesogen” pollutants. MDPI AG: *Int J Environ Res Public Health*; 2016.
- 39) Denoth F, Scalse M, Siciliano V, Di Renzo L, De Lorenzo A, Molinaro S. Clustering eating habits: frequent consumption of different dietary patterns among the Italian general population in the association with obesity, physical activity, sociocultural characteristics and psychological factors. *Eat Weight Disord.* 2016; 21:257–68.
- 40) Beck MA, Handy J, Levander OA. Host nutritional status: The neglected virulence factor. *Trends Microbiol.* 2004; 12:417–23.

- 41) Romano L, Bilotta F, Dauri M, Macheda S, Pujia A, De Santis GL, et al. Short report—medical nutrition therapy for critically ill patients with COVID-19. *Sci: Eur Rev Med Pharmacol*; 2020.
- 42) Muscogiuri G, Barrea L, Savastano S, Colao A. Nutritional recommendations for CoVID-19 quarantine. *Eur J Clin Nutr*. 2020.
- 43) Di Renzo L, Merra G, Botta R, Gualtieri P, Manzo A, Perrone MA, et al. Post-prandial effects of hazelnut-enriched high fat meal on LDL oxidative status, oxidative and inflammatory gene expression of healthy subjects: a randomized trial. *Eur Rev Med Pharmacol Sci*. 2017; 21:1610–26.