

Internship Training

At

BYJU'S

**Title: Study to Understand the Effects of Covid-19 restrictions on physical health
and associated complications on general population of India.**

by

Vaibhav Walia

PG/20/102

Under the guidance of

Dr. Vinay Tripathi

PGDM (Hospital

and Health

Management)

2020-22



International Institute of Health Management Research

New Delhi

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The certificate is awarded to

Vaibhav Walia

in recognition of having successfully completed his internship in the department of
Business Development

and has successfully completed his/her Project on

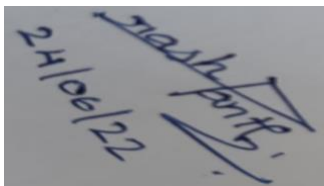
**Study to Understand the Effects of Covid-19 Restrictions on physical health and
associated complications on general population of India.**

Date-15/04/2022

Organization- **BYJU'S**

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

A rectangular box containing a handwritten signature in blue ink, which appears to be 'Vaibhav Walia', and the date '24/06/22' written below it.

**Training & Development
Resources**

Zonal Head-Human

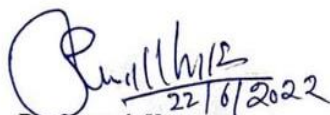
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Vaibhav Walia**, student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at BYJU'S from 15/04/2022 to 15/06/2022.

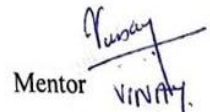
The Candidate has successfully carried out the study designated to him during internship training and his/her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his/her future endeavors.



Dr. Sumesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi



Mentor
Vinay
IIHMR, New Delhi

Certificate of Approval

The following dissertation titled "**A study of the effect of Covid-19 restriction on physical health and associated complication of general population in India**" at BYJU'S is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of PGDM (Hospital & Health Management) for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Dr. Dharmesh Lal

VINAY

ROHINI

Signature

Dr. Dharmesh Lal


Vinay

Rohini

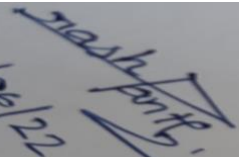
Certificate from Dissertation Advisory Committee

This is to certify that **Vaibhav Walia**, a graduate student of the PGDM (Hospital & Health Management) has worked under our guidance and supervision. He/ She is submitting this dissertation titled "Study to understand the effects of Covid-19 restrictions on mental well-being and productivity of working population in India" at "BYJU'S" in partial fulfillment of the requirements for the award of the PGDM (Hospital & Health Management).

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.


Institute Mentor Name,
Name **VINAY**
Designation, **ASSOCIATE PROFESSOR**
Organization

Organization Mentor
Designation,
Organization


24/06/22

**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT
RESEARCH,
NEW DELHI**

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Study to understand the effects of Covid-19 restrictions on physical health and associated complications on general population in India** and submitted by **Vaibhav Walia** Enrollment No **PG/20/102** under the supervision of **Dr. Vinay Tripathi** for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from **15/04/2022** to **15/04/2022** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.


Signature

FEEDBACK FORM

Name of the Student: Vaibhav Walia

Name of the Organization in Which Dissertation Has Been Completed:
BYJU'S

Area of Dissertation: Assessment of working-class population amidst the COVID-19 restrictions

Attendance: 100%

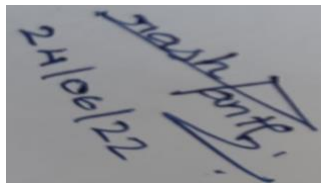
Objectives achieved: Objectives of the internship achieved

Deliverables: Report submitted and presentation made

Strengths: Good domain knowledge

Suggestions for Improvement: Work Ethics

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

A photograph of a handwritten signature and date on a piece of paper. The signature is written in blue ink and appears to be 'Vaibhav Walia'. The date '24/06/22' is written below the signature.

Signature of the Officer-in-Charge/ Organisation Mentor
(Dissertation)

ACKNOWLEDGEMENT

It is an esteemed pleasure to present this research project by thanking each and everyone who helped me in this task. I would like to express my sincere gratitude towards my guide **Dr. Vinay Tripathi**, Assistant professor IIHMR, who helped me immensely throughout the tenure of my summer internship. He inspired me greatly to work in this project with his valuable guidance, support, interest, encouragement, involvement and advice.

I would like to thank **Mr. Prashant** , Team leader and whole BYJU'S team for allowing me to experience such great opportunities and for providing data for my learning.

I would also like to express my special thanks to **Mrs. Divya Aggarwal, Mrs. Nikita Sabherwal** and IIHMR placement team and Dean for providing such great opportunity which helped me to grow and learn about many interesting aspects.

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Project Report

Title:

A study to understand the effect of Covid-19 restrictions on physical health and associated complication of general population in India.

Introduction

The emergence of the SARS-COV-2 virus (COVID-19) was declared on 11 March, 2020 by World Health Organization (WHO). According to WHO, COVID-19 has led to a worldwide spread by which 213 countries were infected by this pandemic. The coronavirus outbreak impacted the health sector and a direct impact on the health of the people. India being a developing country, lacks in technology during the COVID-19 pandemic. The healthcare system totally collapsed and hospitals were full of patients with no beds available. There was a shortage of the recourses to treat from the covid-19 such as beds, oxygen cylinder, drugs and medicines. In India the first case was detected on 26 January 2020 in Kerala. On March 24, 2020 complete lockdown has occurred for 21 days which were further extended 3 times.

During the time of lockdown the people were not allowed to get out of their respective homes without any emergencies. During the pandemic, most of the people have lost their jobs and others were working from home and businesses were also shut down completely. However, evidence suggests that people of all the ages had substantially decreased their level of physical activity during the COVID-19 pandemic compared to the scenario before the pandemic as a result of which, a negative impact on physical and mental health of the individuals has been observed. The restriction of Covid-19 pandemic led to severe impact on the people all over the world. It increased the mental distress, depression and anxiety and it also effected on the lifestyle that include physical activity, unhealthy eating habits, disturbance in sleep and associated complications such as chest pain, joint pain etc.

There were many researches that shows the significant impact on adults due to COVID-19 pandemic restrictions. Most of the population had negative impact as they were unable to do any physical activity. Although majority of people had negative impact of COVID-19, then also there are some people that has positive impact in their lifestyle. There were some families that managed to do physical activity at their homes or nearby. It is important to examine the impact of lockdown on general population of India.

This study aimed to investigate the impact of Covid-19 pandemic on lifestyle including physical activity, sleep pattern, eating habits during Covid-19 lockdown restrictions and associated complications with Covid-9 infection in adults. Due to lockdown people were unable to go out and do some physical activity which leads to disruption in their sleep pattern as well as their eating habits.

Review of Literature

1. In January 2022, a cross sectional study on the effect of Covid-19 restrictions on physical activity and mental health of children and young adults with physical and intellectual disabilities in UK by Nicola Theis, Natalie Campbell, Julie De Leeuw, Marie Owen and Kimberley C. Schenke. The objective of the study is to investigate the perceptions of parents regarding their child's level of physical activity and mental health pre and post covid. Results shows that people have a negative effects of lockdown restriction with 61% reporting a reduction in physical activity and over 90% reported a negative impact on mental health.
2. In April 2022, a cross sectional study was conducted on the impact of Covid-19 restrictions on perceived health and wellbeing of adults Australian sport and physical activity participants in Australia. The author of this study are R. Eime, J. Harvey, M. Charity, S. Elliott, M. Drummond, A. Pankowiak and H. Westerbeek. The objective of this study was to investigate the perceived health and wellbeing of a sample of predominantly active Australian adults, both during Covid-19 and compared with pre Covid-19. Results shows that during Covid-19 lockdown men were significantly more likely than women to report worse or much worse general ($p = 0.014$), physical ($p = 0.015$) and mental health ($p = 0.001$) compared to active adults.
3. In February 2021, a cohort study was conducted on the lifestyle and mental health disruptions during Covid-19 by Osea Giutella, Kelly Hyde, Silvia Saccardo and Sally Sadoff. The objective of the study was to investigate the disruptions in physical activity, Sleep and time use among young adults due to Pandemic and examine the relationship between these disruptions and mental health. Results shows that there is a disruption to sleep habits as students started to sleep about 25 to 30 min more per night throughout the pandemic ($P < 0.001$) and 61% of the participants were at high risk of depression.
4. In November 2020, a descriptive study on worldwide effect of Covid-19 on Physical activity in 187 countries. The author of the study are Geoffrey H. Tison, Robert Avram, Peter Kuhar, Greg M. Marcus, Mark J. Pletcher and Jeffrey E. Olgin. The objective of this study is to examine worldwide changes in step count before and after the announcement of Covid-19 as a global pandemic. Results shows that within 10 days of the pandemic declaration, there was 5.5% decrease in mean steps and within 30 days there was a 27.3% decrease in mean steps.
5. In April 2022, a cross sectional study on effects of Covid-19 on Physical Activity and its relationship with Mental Health in a US community sample. The author of the study are Wei Zhang and Dominick Velez. The objective of this study is to investigate whether physical exercise is linked to a decrease in anxiety and depression. Interpretation of the survey is done by Odds ratio (OR). Results shows that inactive individuals were more likely to develop psychological distress ($OR = 2.17$, 95% CI 1.27-3.69, $P = 0.004$), depression ($OR = 3.81$, 95% CI 1.92-7.57, $P < 0.001$) and anxiety ($OR = 1.86$, 95% CI 0.99-3.47, $P = 0.05$) as compared to highly active individuals.

Research Question

What is the Impact of Covid-19 on their lifestyle including physical health and associated complication of general population in India.

OBJECTIVE OF THE STUDY:

1. To assess the impact of COVID-19 infection on lifestyle including physical health among adults in India.
2. To assess the probable complication associated with Covid-19 infection in adults.

Methodology

Study Design:

A Descriptive Cross-Sectional study to assess the impact of Covid-19 on physical health of general population in India.

Study Setting:

The study was conducted on the general population of India.

Study Population:

The population of interest in our study are the adults in India.

Criteria

1. Age group between 18 years to 64 years.
2. Population with Covid-19 positive report.

Sample Size:

Sample size is calculated with the formula: $n = \frac{Z^2 P (1 - P)}{d^2}$ Where n is the sample size, Z is the statistic corresponding to level of confidence, P is expected prevalence. After calculation on the confidence interval of 95%. Sample size is 385 approximately for descriptive type of study design in our study.

Sampling Method:

Convenience sampling technique was be used to take out sample.

Study Tool:

A structured questionnaire is taken for the adults to assess the impact of Covid-19 on physical health in India. The questionnaire will be close ended for the target population.

Data Collection:

Data is collected through questionnaire via online mode. Google questionnaire is uploaded on whatsapp, linked-in, Instagram all the platform is used to get the target population.

Result:

Demographic Status of respondent

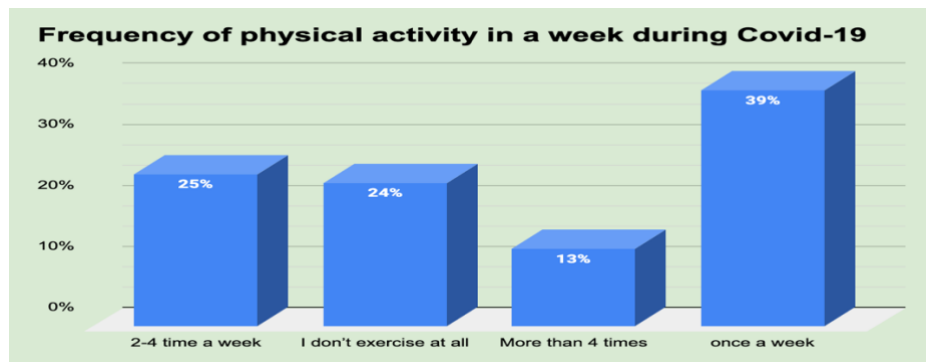
A total of 212 samples were collected from the survey. The data was classified into 4 categories that are Age Group, Gender, Marital status and BMI. Further, Age groups are also divided into 4 categories 18-39, 30-39, 40-49 and above 50 years. Gender has been divided into 3 categories that are Male, Female and others. Since there was no data in the others category Male and Female gender has been used for analysis in the study. Furthermore, Marital Status has been divided into 4 Categories that are Married, Unmarried, Divorced, Widowed and Separated. In addition, BMI was also distributed in 4 categories that are 0-18 for underweight, 19-25 for normal weight, 26-30 for class I obesity- overweight, 31-39 for class II obesity- overweight and 40+ for class III. Gender has been divided into 3 categories that are Male, Female and others. Since there was no data in the others category Male and Female gender has been used for analysis in the study.

Demographic Status

Age Range					
	18-30	31-39	40-49	50+	
	140	50	14	8	
	66%	23%	6.6%	3.7%	
Gender					
	Male		Female		
	91		121		
	42.9		57.1%		
Marital status					
	Unmarried		Married		
	132		80		
	62.2%		37.7%		
BMI					
	0-18	19-25	26-30	31-39	40+
	13	141	33	23	2
	6.1%	66.5%	15.5%	10.8%	0.9%

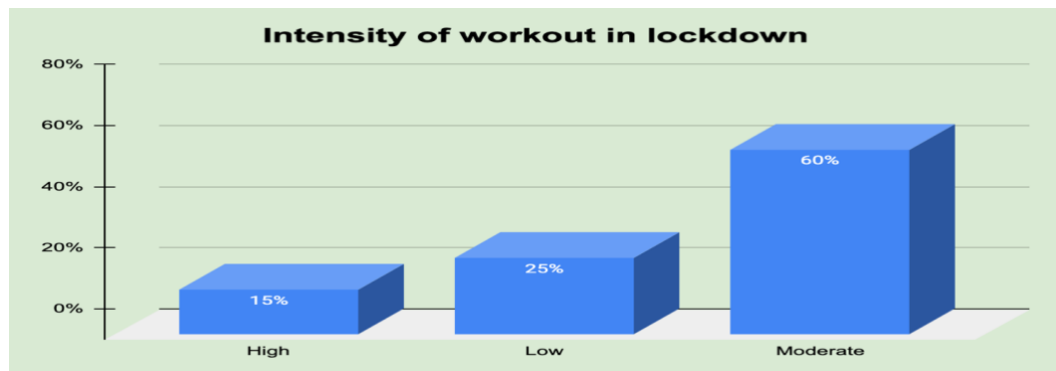
Section 1- Physical Activity

Figure 1: Frequency of physical activity in a week during Covid-19



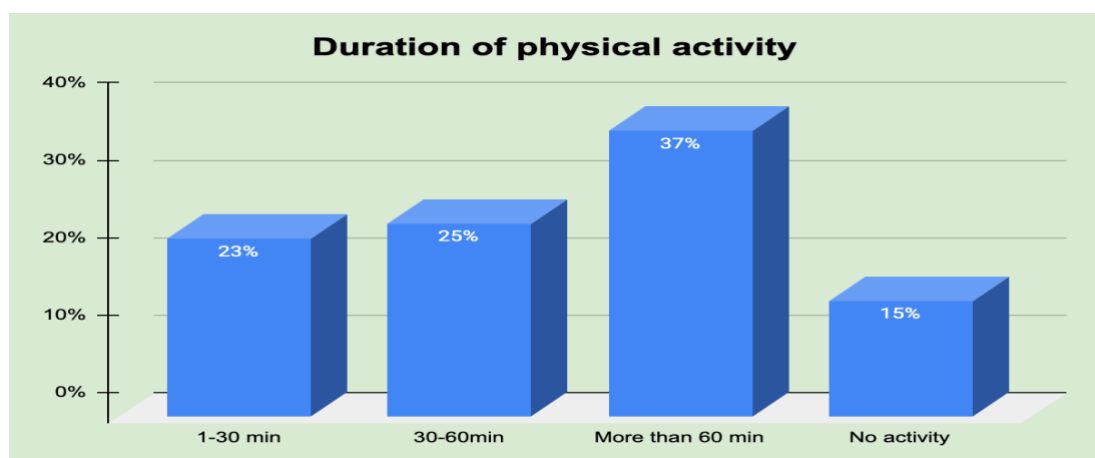
The data shows that most of the participants exercises once a week that is 39% and only 13% of the participants exercises more than 4 times.

Figure 2 : Intensity of workout in lockdown



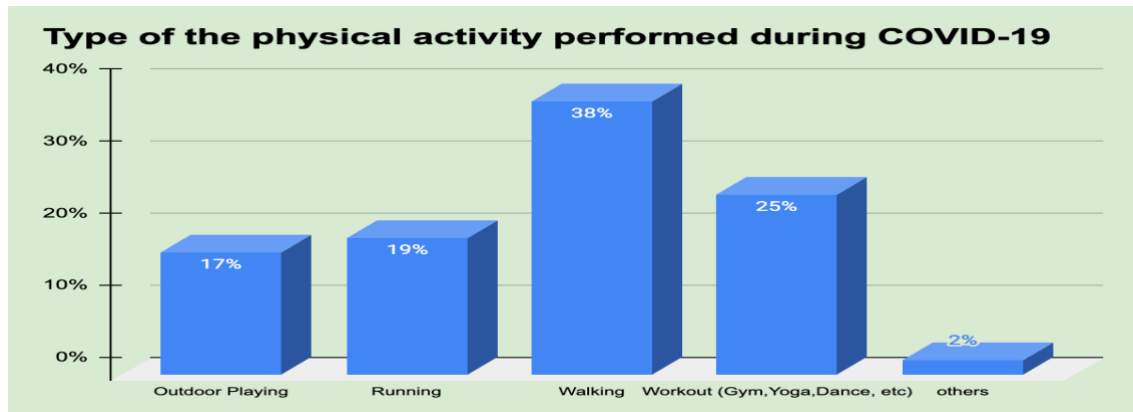
The data shows that most of the participants had moderate intensity of workout in lockdown and 15% participants had high intensity of workout in lockdown.

Figure 3 : Duration of Physical Activity during Covid-19



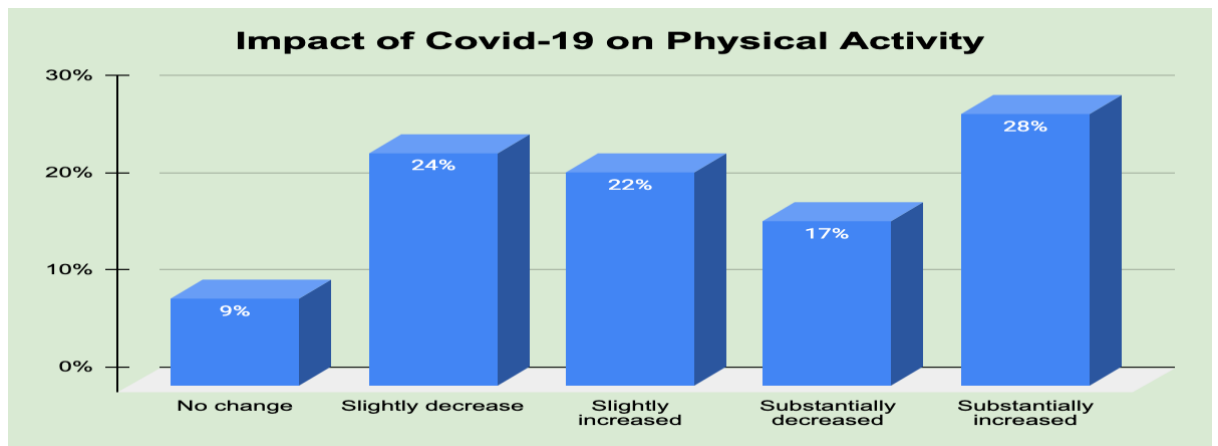
The data shows that most of the participants have more than 60 min duration of physical activity and 15% of the participants have not spend any time on physical activity.

Figure 4 : Type of the physical activity performed during COVID-19



Data shows that most of the participants were walking to perform physical activity by 38% and lowest in outdoor games that is 17%.

Figure 5 : Impact of Covid-19 on physical Health



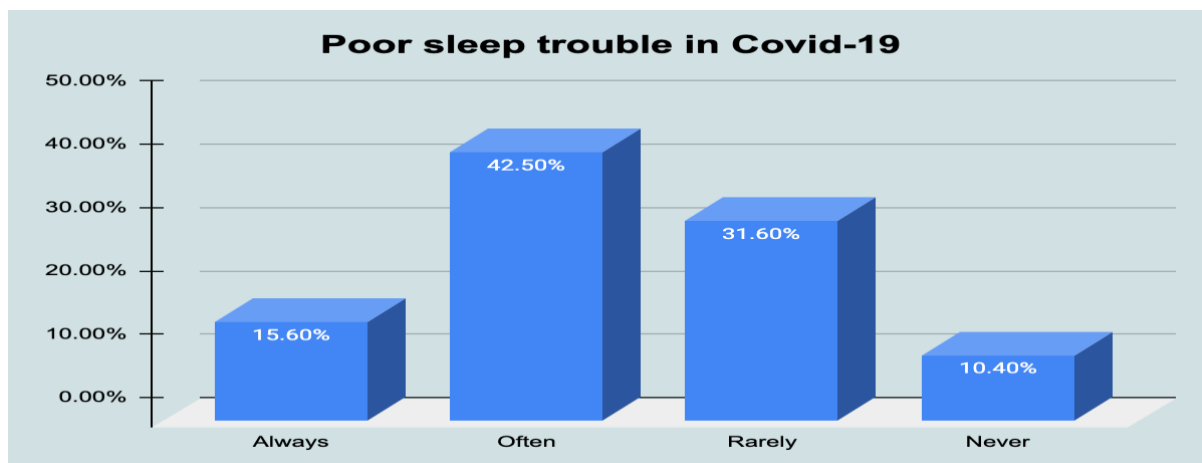
Data shows that most of the participants has substantially decreased in their physical activity by 28% and only 9% of the participants were not impacted in the physical activity.

Section B Sleep Pattern

Figure 6 : Family history of sleep disorder

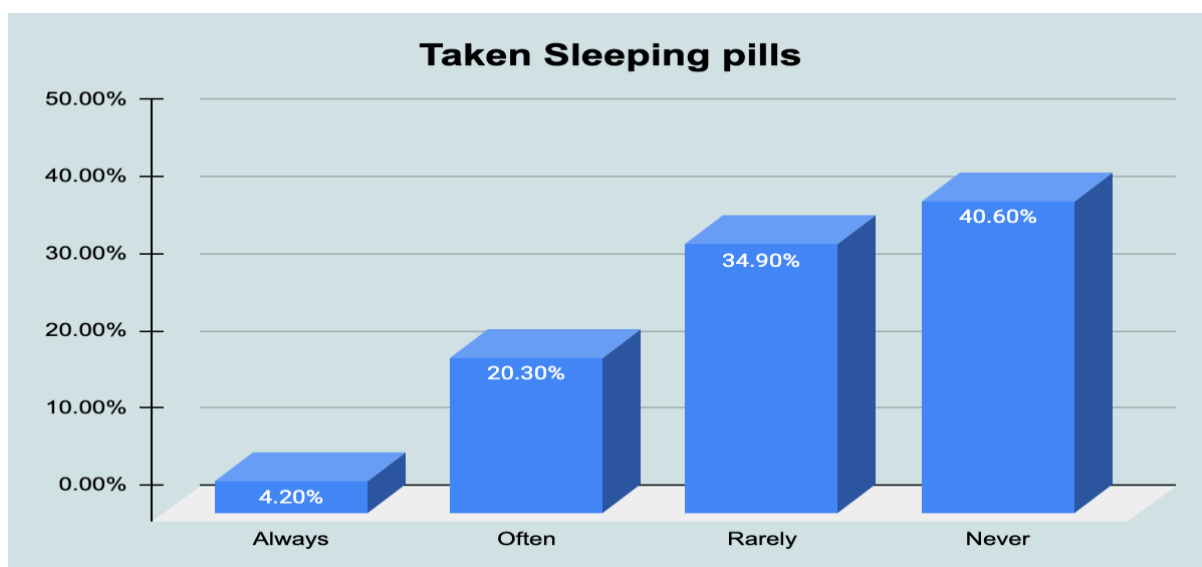


Figure 7 : Poor sleep trouble in Covid-19



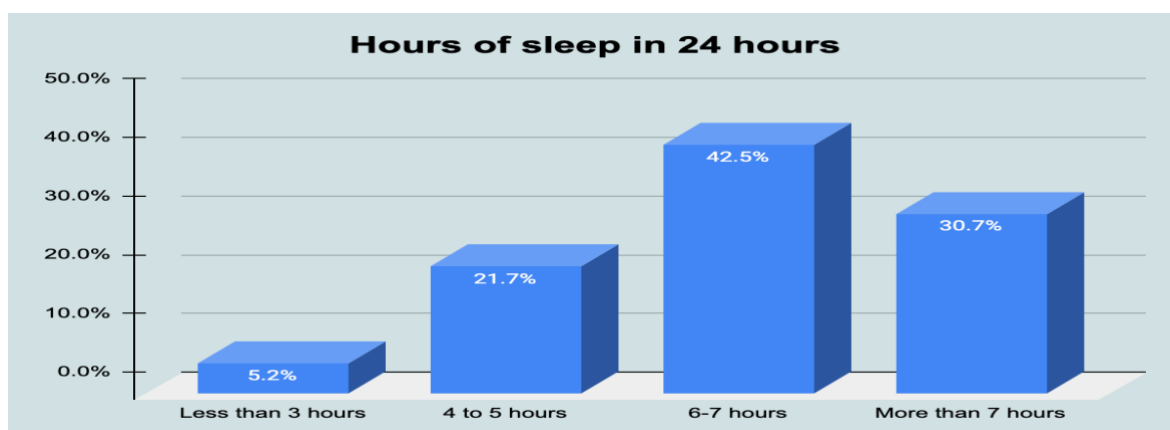
Data shows that most of the participants often had poor sleep by 42.5% and only 10.4% never had poor sleep.

Figure 8 : Taken Sleeping pills



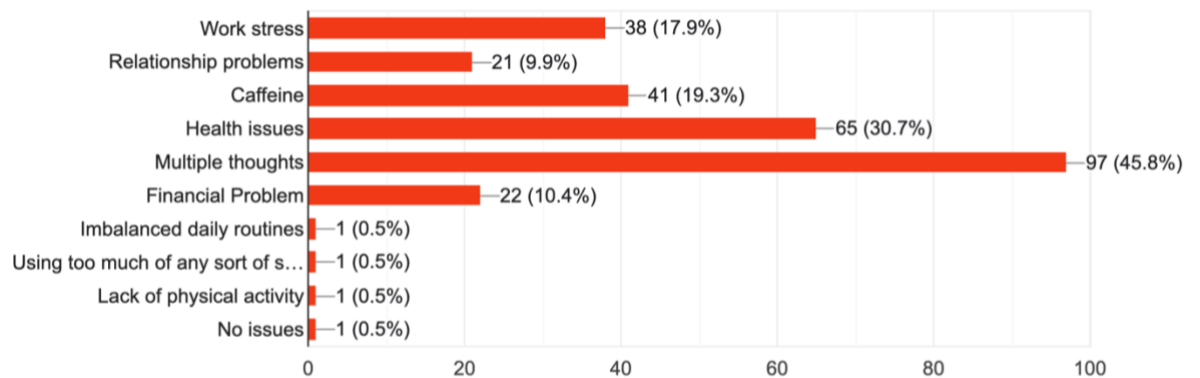
Data shows that 4.2% participants take sleeping pills on a regular basis and 40.6 % doesn't take sleeping pills.

Figure 9 : Hours of sleep in 24 hours



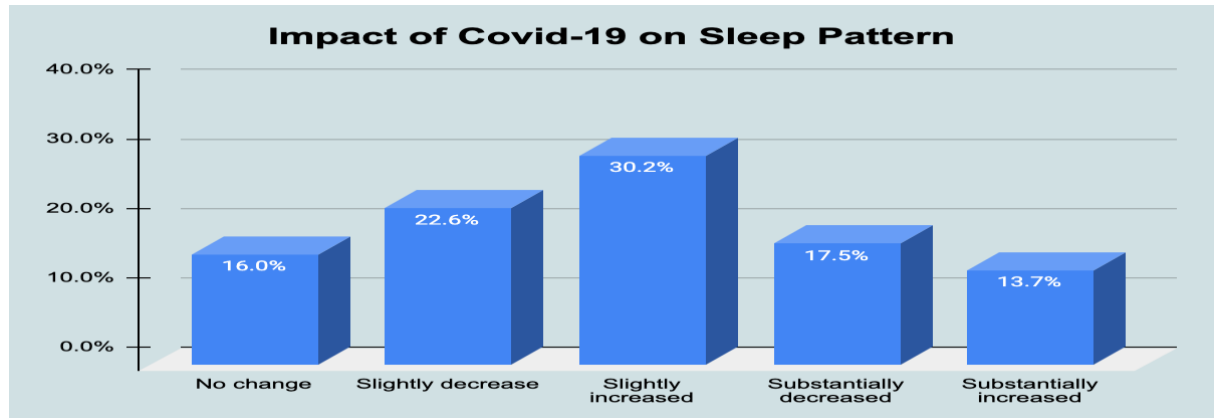
Data shows that most of the participants slept for 6-7 hours in Covid-19 pandemic by 42.5% and 5.2 % participants slept of less than 3 hours.

Figure – 10 Following points contributed to lack of sleep at the time of lockdown



Data shows that most of the population was suffering from multiple thoughts that is 45.8%. Further the second most contributed factor for lack of sleep was health issue by 30.7%. In addition, 17.9% of the participants struggled from work stress which cause to lack of sleep at the time of Covid-19 pandemic.

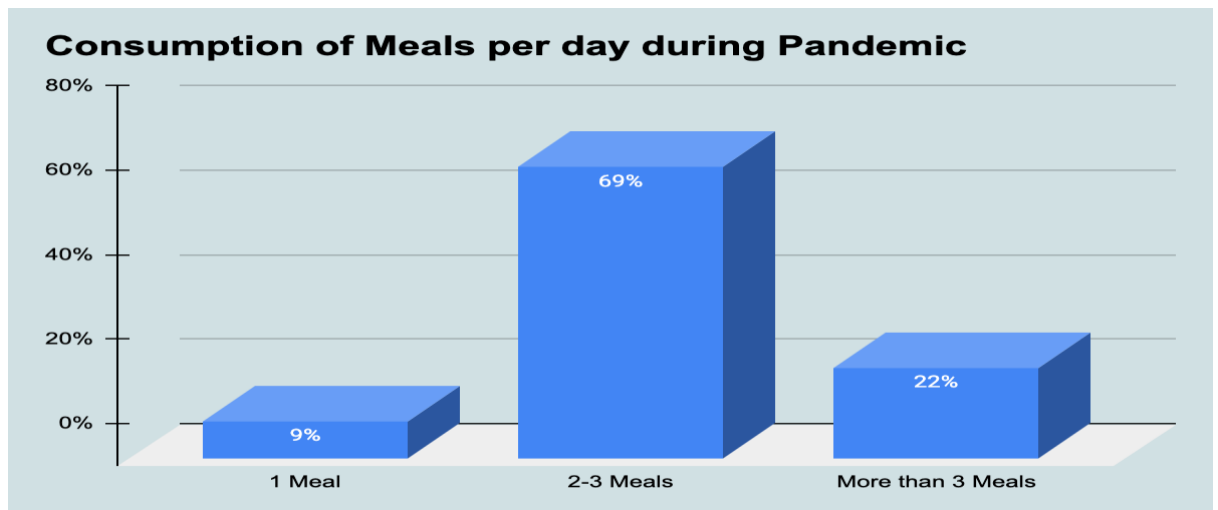
Figure 11 : Impact of Covid-19 pandemic on sleep pattern



Data shows that most of the participants had slightly increased in their sleep by 30.2% and 22.6% of participants had slightly decreased in their sleep.

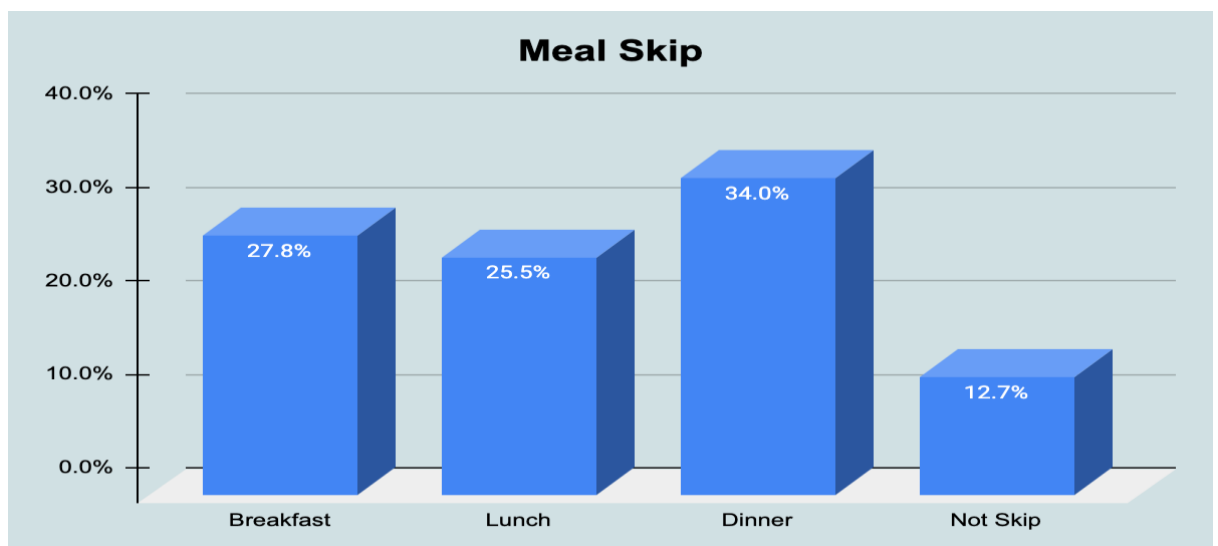
Section C Diet Pattern

Figure 12 : Consumption of Meals per day during Pandemic



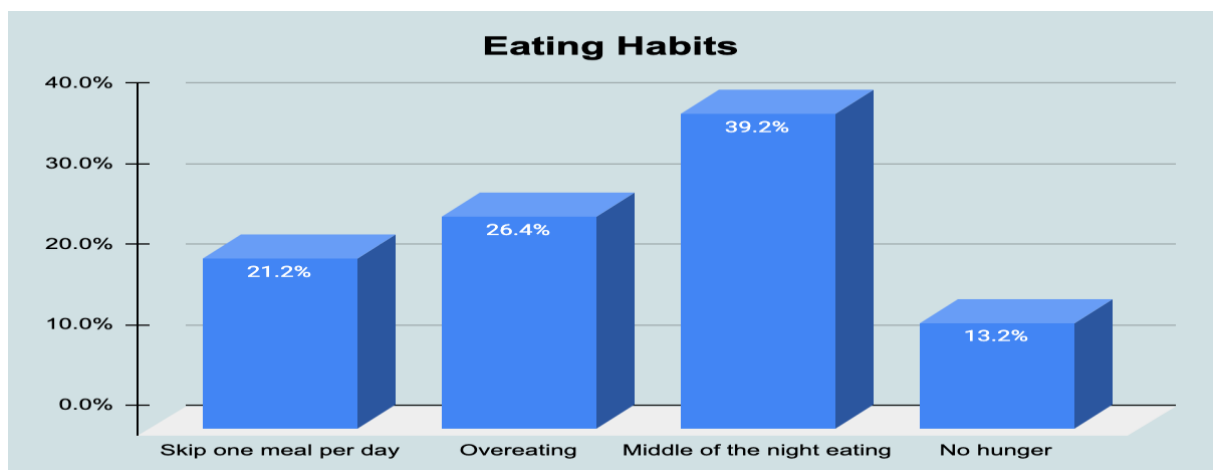
Data shows that most of the participants consumed 2-3 meals per day during pandemic that is 69% but there are 9% participants that has taken only 1 meal during pandemic.

Figure 13 : Meal skip during the time of pandemic



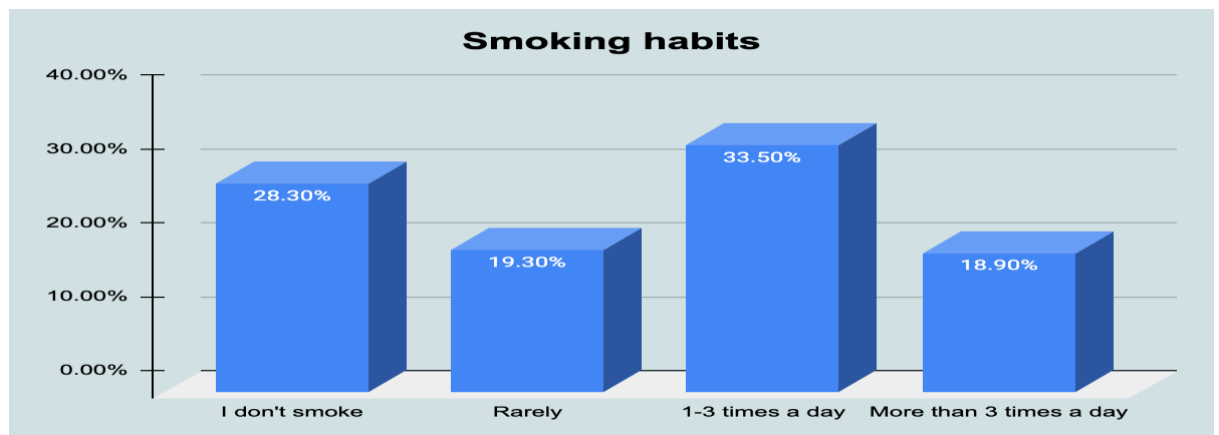
Data shows that during the time of Covid-19 pandemic most of the people skip their dinner meal by 34% and only 12.7% of participants are there who doesn't skip there any meal.

Figure 14 : Eating Habits during Covid-19 Pandemic



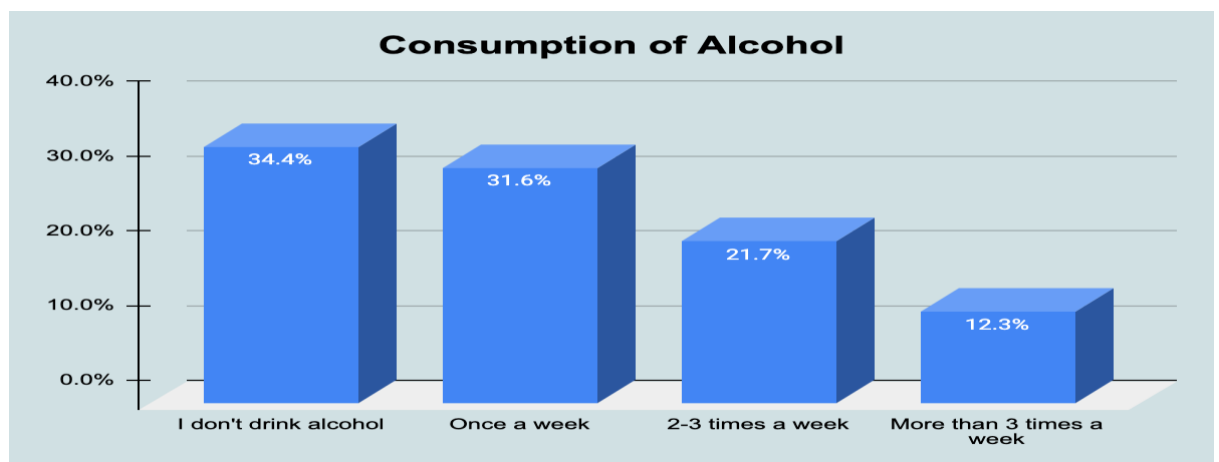
Data shows that during the time of Covid-19 Pandemic most of the people were eating in the middle of the night by 39.2% and 13.2% of respondent suffer from no hunger.

Figure 15 : Smoking habits



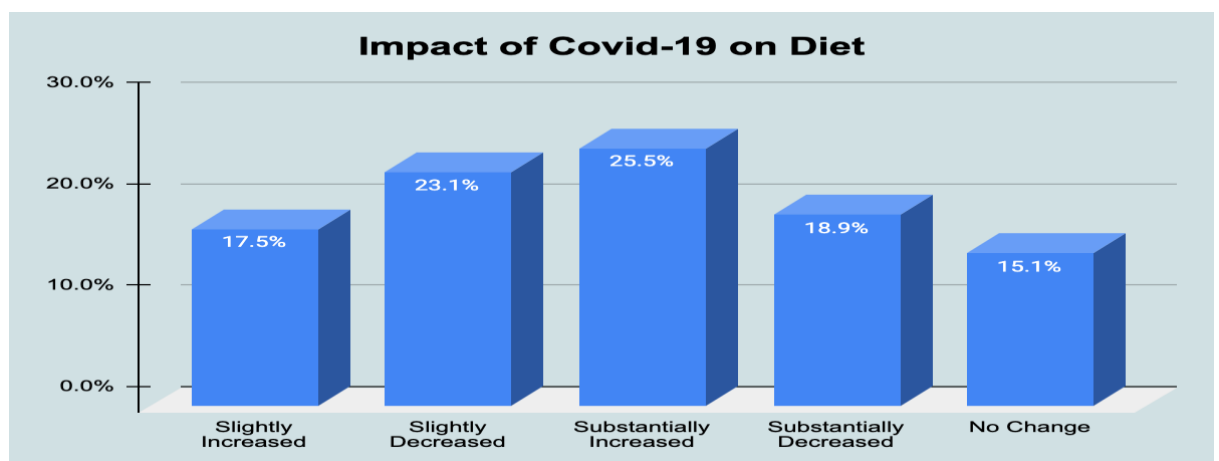
Data shows that most of the participants has the habits of smoking 1-3 times a day and 18.9% of participants smokes more than 3 times a day during the time of covid-19.

Figure 16 : Consumption of alcohol during pandemic



Data shows that 21.7% of participants drinks alcohol 2-3 times a week and 12.3% of participants drinks more than 3 times a week.

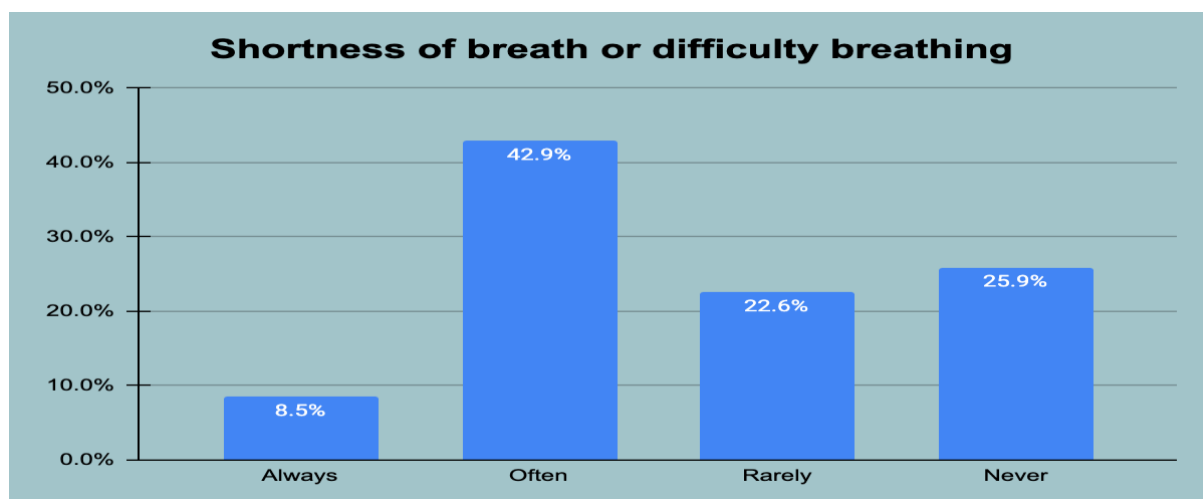
Figure 17 : Impact of Covid-19 on Diet



Data shows that most of the participants have substantially increased in their diet by 25.5% and 18.9% participants responded to substantially decreased in their diet during the time of Covid-19 pandemic.

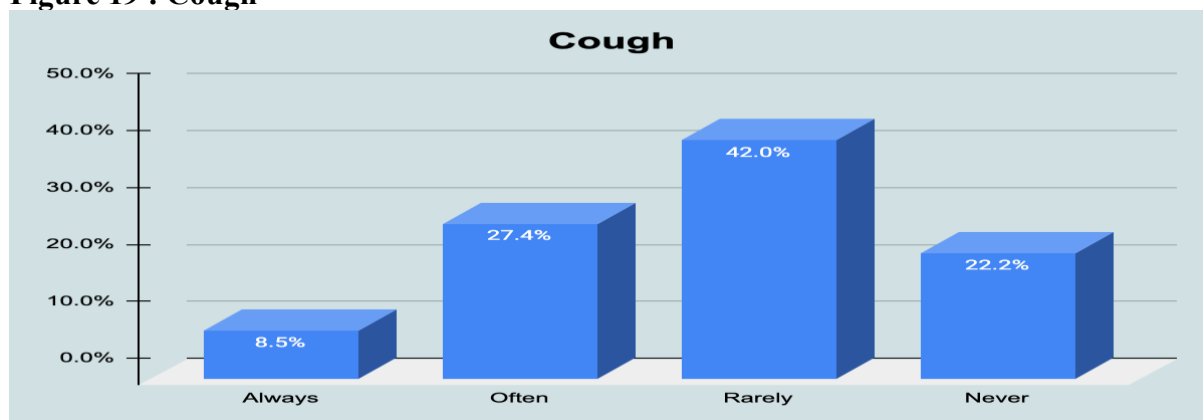
Section D – Associated Complications

Figure 18 : Shortness of breath or difficulty breathing



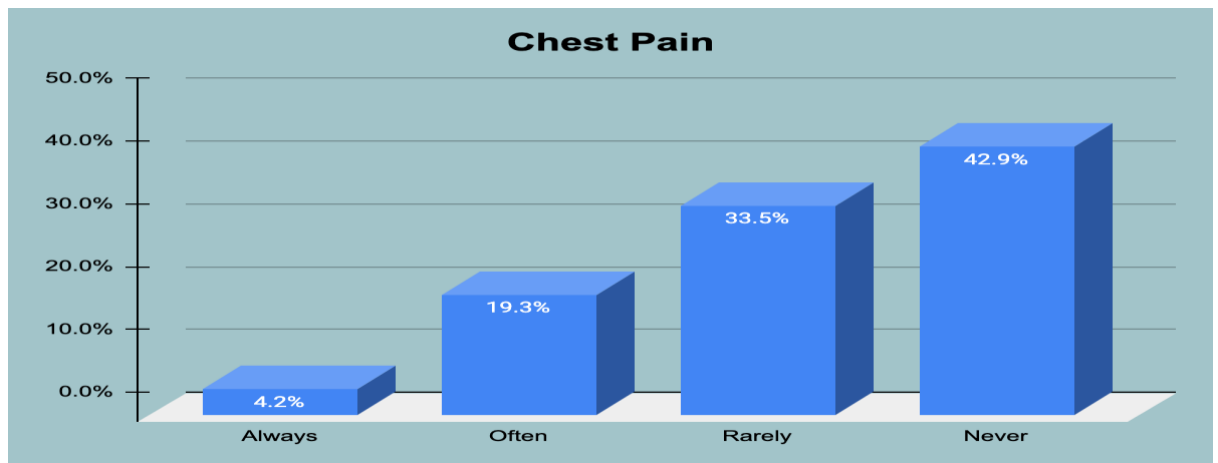
The data in the graph represents that most of the participants often feel shortness of breath or difficulty breathing by 42.9% and 8.5% of participants always feel shortness of breath or difficulty breathing.

Figure 19 : Cough



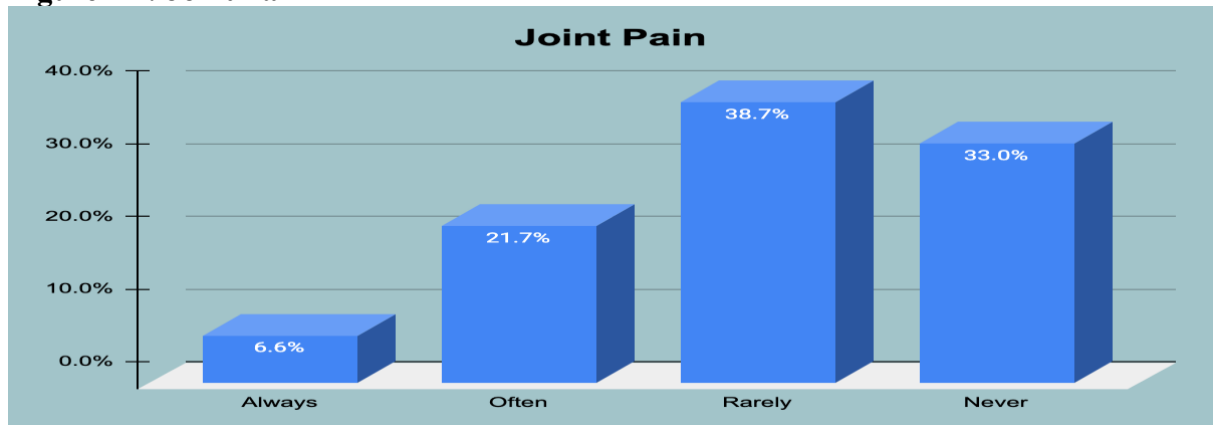
The data in the graph represents that 8.5% of the participants always suffered from cough and 27.4% of the participants often suffered from cough and only 22.2% of the participants didn't suffer from cough.

Figure 20 : Chest Pain



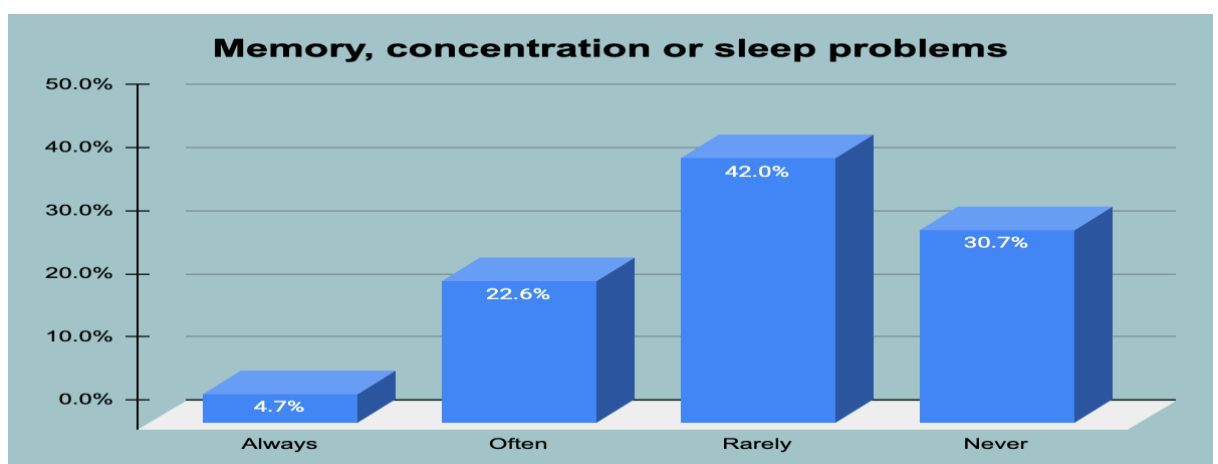
The data in the graph represents that 4.2% participants always suffered from chest pain. In addition, 19.3% participants often suffered from chest pain and 42.9% participants didn't suffer from chest pain.

Figure 21 : Joint Pain



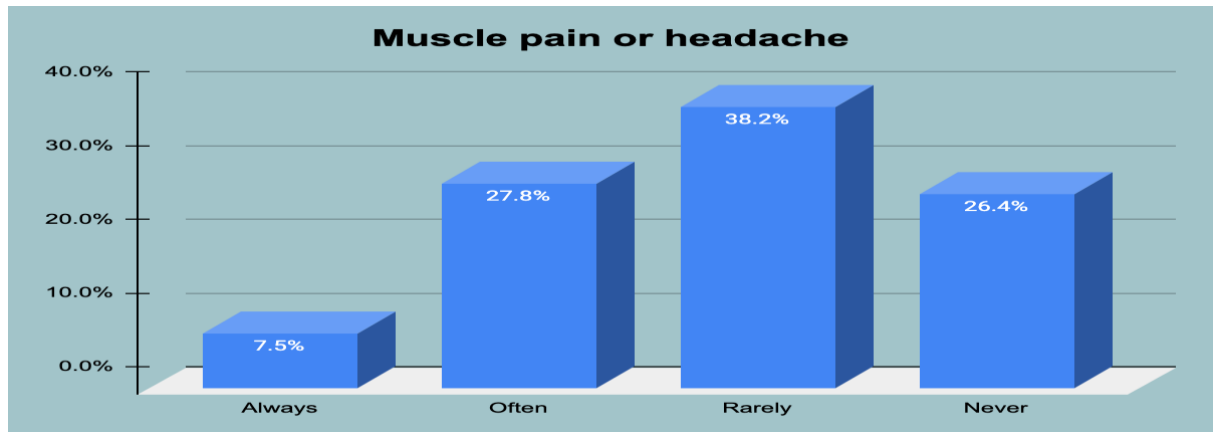
The data in the graph represents that 6.6% of the participants always suffered from joint pain. Further, 21.7% of the participants often suffer from joint pain.

Figure 22 : Memory, concentration or sleep problems



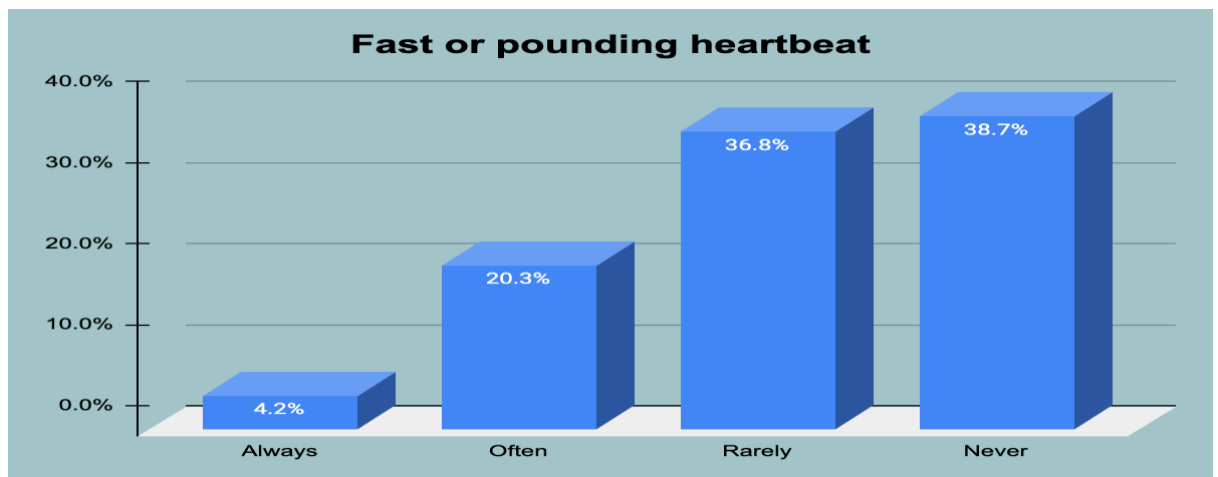
The data in the graph represents that 4.7% of the participants always suffered from memory, concentration or sleep problems. Furthermore, 22.6% of the participants often suffered from memory, concentration or sleep problems.

Figure 23 : Muscle Pain or Headache



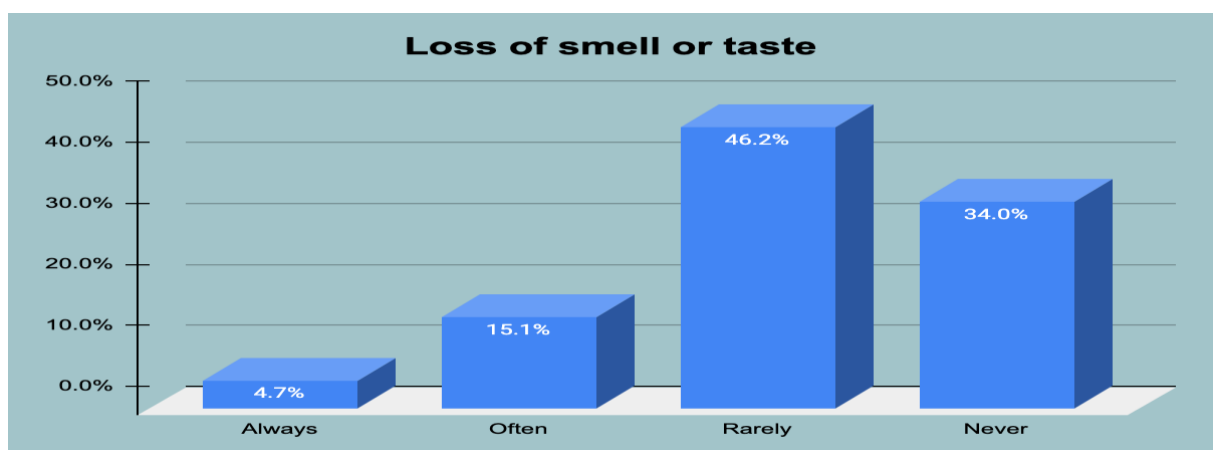
The data in the graph represents that 7.5% of the participants always suffered from muscle pain or headache during the time of pandemic. Further, 27.8% respondent often suffered from muscle pain or headache.

Figure 24 : Fast or pounding heartbeat



The data in the graph represents that 4.2% on the participants always suffered from fast or pounding heartbeat. In addition, 20.3% of the participant often experience the fast or pounding heartbeat.

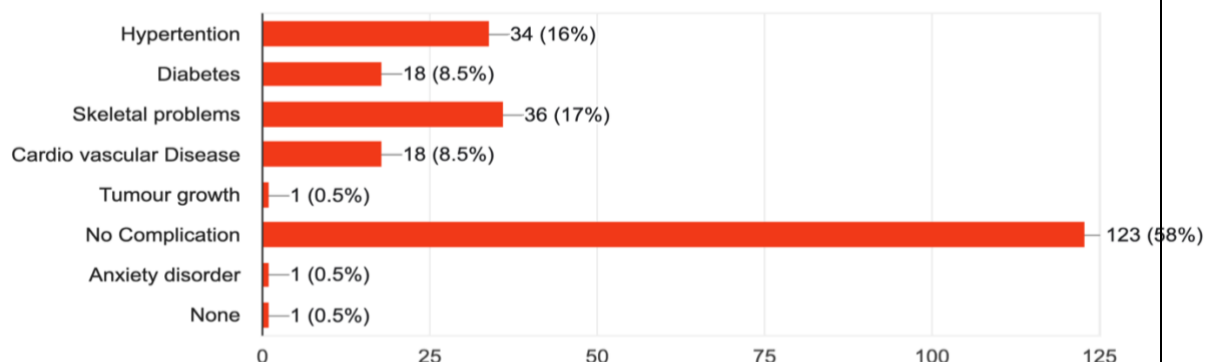
Figure 25 : Loss of smell or taste



The data in the graph represents that 4.7% of the participants always experience loss of

smell or taste. In addition, 15.1% of the respondent often experience loss of smell or taste.

Figure 26 : Post covid, diagnosed with associated complication



The data in the graph shows that most of the participants diagnosed with skeletal problems after pandemic lockdown by 17%. The second most seen complication among participants is Hypertension by 16%.

Discussion

The study has depicted negative impact on Physical activity levels, Sleep pattern, Diet pattern and associated complication of Covid-19 pandemic restrictions.

Majority of the participants (28%) have substantially decreased in their physical activity and only 9% of the respondent were not impacted by Covid-19 Pandemic restriction. A study in Uk, confirms that people have negative impact on their physical health in the Covid-19 pandemic restrictions. The frequency of the participants in our study depicts that 39% of the participants exercises once a week and only 13% of the participants exercises more than 4 times. They have reduced their time of physical activity as a result we have found that in our study 15.5% of respondent have BMI between 26-30 which means that they are in the category of Class 1 obesity, 10.8% of respondent have BMI between 31-39 which means that they are in the category of Class 2 obesity.

A change has been noticed in sleep time and wake time after lockdown. Covid-19 restriction also impacted sleep pattern. This study depicted that 42.5% of the participants had poor sleep during Covid-19 pandemic. A study on Greek population was done which reported 38% of the participants had clinical insomnia after covid-19 outbreak. Our result has contradicted this result as in our study 22.6% had decreased in their sleep. This study also shows that 45.8% of the population was experiencing multiple thought and 17.9% of the participants experience work stress which causes to lack of sleep or poor sleep at the time of Covid-19 pandemic restrictions.

This study contradicted the study performed in Poland which reported 43.5% of respondent has substantially increased the habit of eating more but our study depicts that 25.5% of respondents has increased the habit of eating more. In addition, 18.6% of respondent has substantially decreased in their diet. Study also state that during the time of Covid-19 pandemic most of the people were eating in the middle of the night by 39.2% and 13.2% of respondent experienced no hunger.

It is significant to note that Physical activity, Sleep pattern and Diet have a strong association with health. Results have shown that 51.4% of the respondent experience shortness of breath or difficulty breathing, 35.9% respondent experience cough, 28.3% respondent experience joint pain. Further, this study shows that 17% of the respondent experience skeletal problem and 16% of the respondent experience Hypertension after pandemic restrictions.

Conclusion

Overall, this research has showed that Covid-19 restriction was associated with physical health, poor sleep quality, disturbed sleep cycle, disturbed diet and also complication on some of the respondent. Results have shown negative effect on the respondent due to covid-19 pandemic restrictions.

Recommendation

1. It has been observed that physical activity has impacted substantially during Covid-19. It would be advisable to focus on physical activity to prevent from associated complication.
2. There should a provision of awareness camps in which health check-ups is been done such as BMI, Height , Weight etc.
3. The BMI of the targeted population was high so there should be provision to do some physical activity.
4. It has also been observed that sleep and diet is also associated with physical health. It would be advisable that along with physical activity, people should also focus on sleep pattern and Diet.

Limitation

The limitation of the study is that due to shortage of time we were unable to complete the sample size that was proposed.

References

- Theis N, Campbell N, De Leeuw J, Owen M, Schenke KC. The effects of COVID-19 restrictions on physical activity and mental health of children and young adults with physical and/or intellectual disabilities. *Disabil Health J*. 2021 [cited 2022 Jun 21];14(3):101064.
- Giuntella O, Hyde K, Saccardo S, Sadoff S. Lifestyle and mental health disruptions during COVID-19. *Proc Natl Acad Sci U S A*. 2021;118(9):e2016632118.
- Tison GH, Avram R, Kuhar P, Abreau S, Marcus GM, Pletcher MJ, et al. Worldwide effect of COVID-19 on physical activity: A descriptive study. *Ann Intern Med*. 2020;173(9):767–70.
- Sidor A, Rzymiski P. Dietary Choices and Habits during COVID-19 Lockdown: Experience from Poland. *Nutrients*. 2020 [cited 2022 Jun 21];12(6):1657.
- Eime R, Harvey J, Charity M, Elliott S, Drummond M, Pankowiak A, et al. The impact of COVID-19 restrictions on perceived health and wellbeing of adult Australian sport and physical activity participants. *BMC Public Health*. 2022;22(1):848.

Annexure -1
FORM- SURVEY TOOL

Impact of Covid-19 restrictions on physical health and associated complication of general population in India

Section 1- General Information

1. Name
2. Age
3. Height (in feet)
4. Weight (in kg)
5. Gender
 - Male
 - Female
 - Prefer not to say
6. Marital Status
 - Single
 - Married
 - Divorced
 - Widowed
 - Separated

Section 2- Physical activity during Covid-19

1. How often did you exercise in a week?
 - I don't exercise at all
 - once a week
 - 2-4 time a week
 - More than 4 times
2. What was the intensity of your workout in lockdown
 - High
 - Moderate
 - Low
3. What was the duration of your physical activity?
 - 1-30 min
 - 30-60min
 - More than 60 min
4. What was the type of the physical activity you were doing during that time?
 - Workout (Gym,Yoga,Dance, etc)
 - Running
 - Outdoor Playing
 - Walking

5. Which of the following describes your physical activity before Covid and after covid?
 - Slightly increased
 - Slightly decrease
 - Substantially increased
 - Substantially decreased
 - No change

Section 3- Sleep Pattern during Covid-19

1. Do you have a family history of sleep disorders?
 - Yes
 - No
 - May be
2. How often has poor sleep troubled you in Covid time?
 - Always
 - Often
 - Rarely
 - Never
3. How many nights do you think you get poor sleep in a week?
 - Once a week
 - 2-4 times a week
 - more than 4 times a week
4. How often do you take sleeping pills to fall asleep?
 - Always
 - Often
 - Rarely
 - Never
5. how many hours of sleep do you get in 24 hours? (approximately)?
 - Less than 3 hours
 - 4 to 5 hours
 - 6-7 hours
 - More than 7 hours
6. How much do you think the following points contribute to your lack of sleep at the time of lockdown?
 - Work stress
 - Relationship problems
 - Caffeine
 - Health issues
 - Multiple thoughts
 - Financial Problem
7. Which of the following describes your sleep before Covid and after covid?
 - Slightly increased
 - Substantially increased

- Substantially decreased
- No change

Section 4- Diet and Nutrition

1. How many meals per day do you eat?
 - 1 meal
 - 2-3 meals
 - More than 3 meals
2. If you skip meals, what meal do you usually skip?
 - Breakfast
 - Lunch
 - Dinner
3. How would you best describe your eating habits?
 - Skip one meal per day
 - Overeating
 - Middle of the night eating
 - No hunger
4. How often do you smoke in a day?
 - I don't smoke
 - Rarely
 - 1-3 times a day
 - More than 3 times a day
5. How often do you consume alcohol in a week?
 - I don't drink alcohol
 - Once a week
 - 2-3 times a week
 - More than 3 times a week
6. Which of the following describes your diet before Covid and after covid?
 - Slightly increased
 - Slightly decrease
 - Substantially increased
 - Substantially decreased
 - No change

Section 5- Post Covid, have you been experiencing the following

1. Shortness of breath or difficulty breathing
 - Always
 - Often
 - Rarely
 - Never
2. Cough

- Always
 - Often
 - Rarely
 - Never
3. Chest pain
- Always
 - Often
 - Rarely
 - Never
4. Joint pain
- Always
 - Often
 - Rarely
 - Never
5. Memory, concentration or sleep problems
- Always
 - Often
 - Rarely
 - Never
6. Muscle pain or headache
- Always
 - Often
 - Rarely
 - Never
7. Fast or pounding heartbeat
- Always
 - Often
 - Rarely
 - Never
8. Loss of smell or taste
- Always
 - Often
 - Rarely
 - Never
9. Post covid, have you been diagnosed with any of the following?
- Always
 - Often
 - Rarely
 - Never



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