KNOWLEDGE AND AWARENESS ABOUT NOURISHING AND HEALTHY FOODS TO BOOST IMMUNITY FOR COMBATING COVID-19 AMONG PEOPLE OF RAIPUR

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ABSTRACT:

Background: On December 12th 2019, a new coronavirus (SARS-CoV2) emerged in Wuhan, China, sparking a pandemic of acute respiratory syndrome in humans (COVID-19). On the 24th April 2020, the number of COVID-19 deaths in the world. According to the COVID-case tracker by Johns Hopkins university, was 195,313 and the number of COVID-19 confirmed cases was 2,783,512. 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 consequence. Optimizing public health during this pandemic requires not only knowledge from the medical and biological science but also of all human science related to lifestyle social and behavioural studies , including dietary habits and lifestyle.

Methods: our study aimed to investigate the knowledge and awareness about nourishing and healthy foods to boots immunity for combating COVID-19 among people. The study comprised a structured questionnaire packet that inquired demographic information (age, gender, place of residence , Mail ID, occupation, address, Type of family, Family size), anthropometric data(reported weight and height and BMI) dietary habits information, daily intake of certain foods, food frequency and number of meals/day, lifestyle habits information (sleep quality , smoking , physical activity). The survey was conducted from

Results: A total number of 100 people were participated in online survey. 30 open ended questions in which demographic data, food habits, physical activity related questions were asked to all participants. The result shows that male 29.3%, female 66.3%. Response according to occupation by people Most of people belongs to students category and rest of the people were professor, Govt. service holder , private sector , retired person , home maker , agriculture and shop holder , family size respondents , most of the family size having1-3 person . 52.2% people eat 2 times, 23.9 % people eat 3 times and rest of people eat 5times a day. 69.2% pay their house workers and 3.2% not. 33.3 % people spent per day on health related Tv programmes 23.3 % were hours , 8.2 % were 1 hour , 60% people only spent one hour in kitchen , 15 % 2 hours , 15 % were 3 hours and 5% spent 4 hours . 59.8% were wear mask and gloves while purchas   ```````ing and handing any food item 23.9% weren't and rest of the people sometimes. 7.6% said yes and rest of 13% said they used sometimes.

35.5 % people notice that food habits will be changed, 10 % people feel decrease of food wastage, 9.4 % to feel time to change habit and 8.2 % people feel food habits will be change too.

Conclusion: It can be concluded that COVID-19 had changed the life style of people. People became more alert, showed faith on ancient Indian remedies. People learnt how to boost and maintain their immunity with our old traditions.

Introduction: The purpose of this survey to know knowledge and awareness about nourishing and healthy foods to boost immunity for combating covid-19 among people of Raipur. COVID-19 spread Via a number of means, primarily involving saliva and other bodily fluids and excretions. These fluids can form small droplets and aerosols, which can spread as infected person breathes, cough, sneeze, sing or speak. The virus may also spread by direct contact and it is unknown how often it spread via fomites (contaminated surfaces). The exact route of transmission is rarely proven conclusively but infected mainly happens when people are near each other for long enough, which is known as close contact. It can spread as early as two days before infected persons show symptoms and from symptomatic individuals. People remain infectious for up ten days in moderate cases and two weeks in severe cases reaction from a nasopharyngeal swab. Nourishing and healthy foods boots the Immunity.

Methodology:

Objective of the survey: this survey research study aimed to access the *KNOWLEDGE AND AWARENESS ABOUT NOURISHING AND HEALTHY FOODS TO BOOST IMMUNITY FOR COMBATING COVID-19 pandemic,* social media use, work from home and more selected variables. It was also intended to measure the adjustment made by people during COVID-19 and how they are maintaining their daily routine.

Study method: Questionnaire (online – through – email, what's app).

Sampling technique: probability sampling- sample random sampling.

Sample size: 100 study population.

Ethical permission: informed all participants about the survey study to be used for publishing.

Study tool: A self-prepared semi- structured anonymous questionnaire was used to record the responses of participants. The questionnaire was prepared after the literature review, focus group discussion to check relevance and make necessary changes according to our study requirements.

 Results and Discussion:

Total 100 people from different work field and age group participate this online questionnaire survey.

Figure-01 shows that distribution of gender of the people in involved in survey. The result shows that 29.3%were male and rest were females (66.3%).

Figure -1

Distribution of people as per Gender
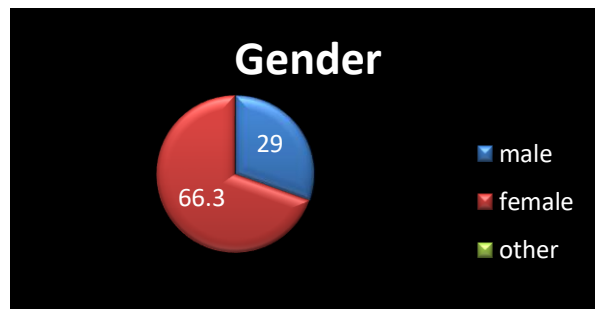
The Figure-02 shows that occupation response by people. Most of the people belongs to students (50%) category and rest of the people were professor (30%), Govt. Service (03%), Private sector (05%), Retired person (02%), Home maker (10%), agriculture and shop holder.

Figure-2

Distribution of the respondents according to occupation
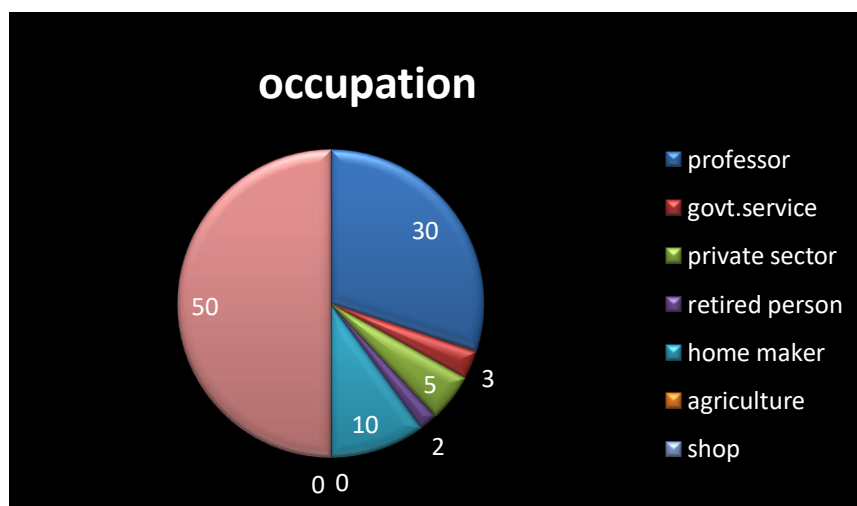
Figure- 03 shows that 70.4% samples were belongs to nuclear family and rest of 29.6% samples were belongs to joint family.

Figure-3

Distribution of the respondents according to types of family
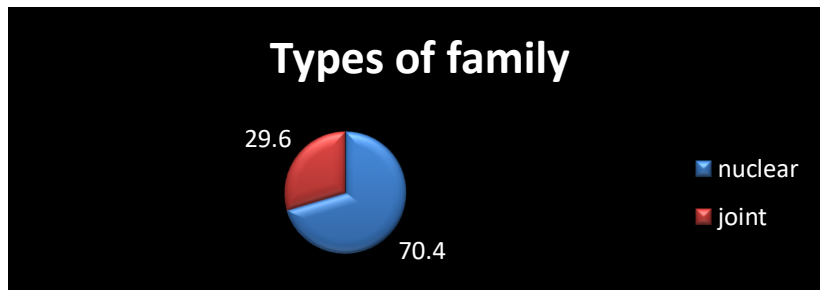
Figure – 04 shows that family size of respondents, most of the family size having 1-3 people (28.3%), 4-5 people (19.6%), 6-9 people (10.9%), and more than 10 people (8.7%).

Figure-4

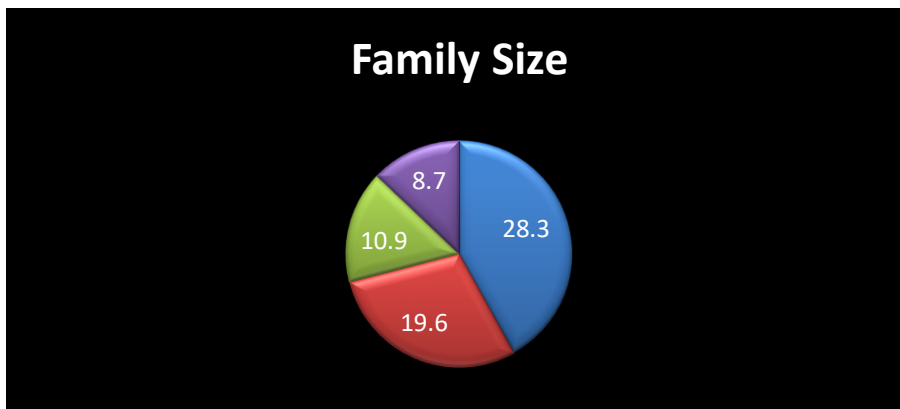### Distribution of the respondents according to Family size

Figure-5

Distribution of the respondents according to Food Habit

Figure -5 shows that 44.4 % people were vegetarian, 25.9 % people were non- vegetarian, 7.4 % people were having Gluten free, 22.2% people were Eggetarian and rest of 2% people were having Jain food.
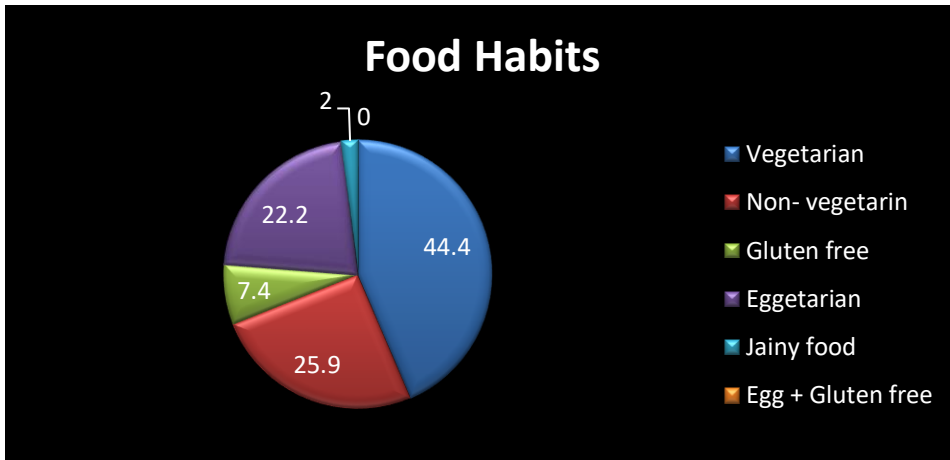
Figure-6

Distribution of the respondents according to Meal frequency before lockdown

Figure -06 shows that 52.2% people eat 2 times in a day, 23.9 % people eat 3 times in a day and rest of 15.2% people eat 4 times a day before lockdown.
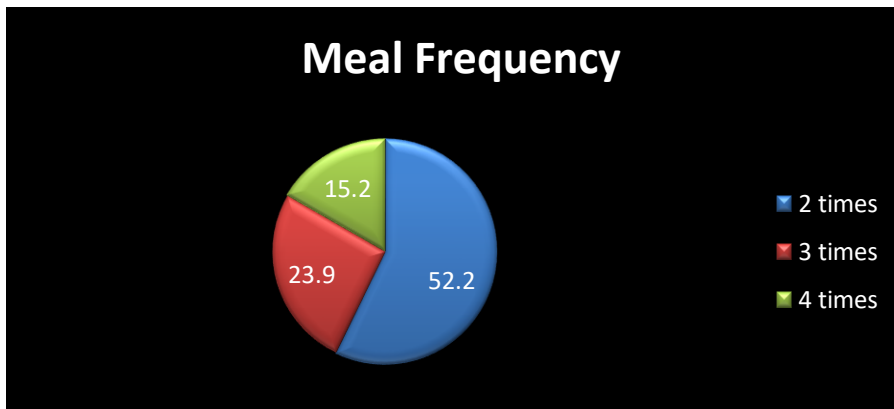

Figure-7

Distribution of the respondents according to Meal frequency during lockdown

Figure -07 shows that 65.6 % people have twice in a day, 20% people have once in a day, 13.3 % people have 3 times in a day and rest of 1 % people have 4 times in a during lockdown.
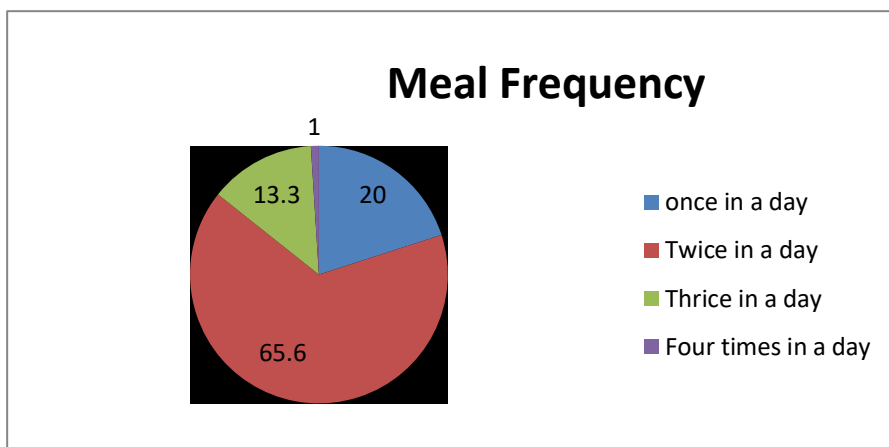
Figure-08

Distribution of the respondents according to maid's worker

Figure – 08 shows that 69.2 % people called their home workers for domestic work and rest of 30.8 % people were not.
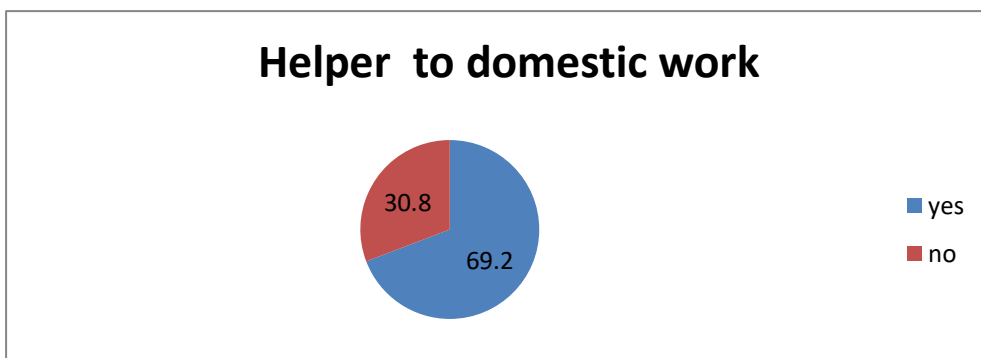

Figure-09

Distribution of the respondents according to payment

Figure-09 shows that 85.2% people pay domestic workers without service during lockdown and 14.8% people did not do.
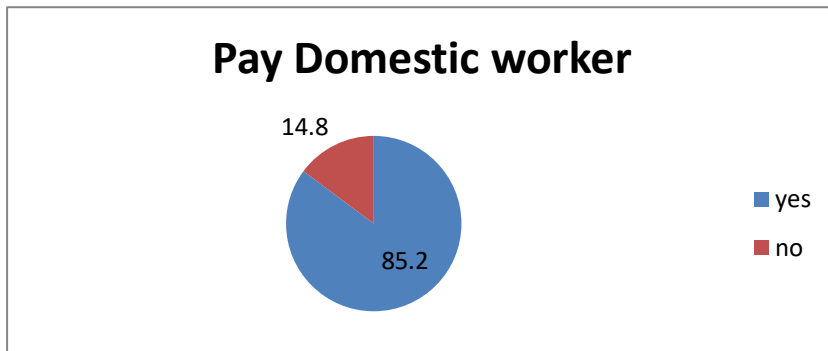
Pay Domestic worker

14.8

85.2

■ yes
■ no

Figure-10

Distribution of the respondents according to spent time on watching TV

Figure – 10 shows that 70% of people spent on watching TV, during lockdown   more than 5 hours in a day , 10% of people spent 4 hours in a day , 3% people spent 3 hours in a day, 5% of people spent 2 hours in a day, rest of 2% of people spent 1 hour in a day.
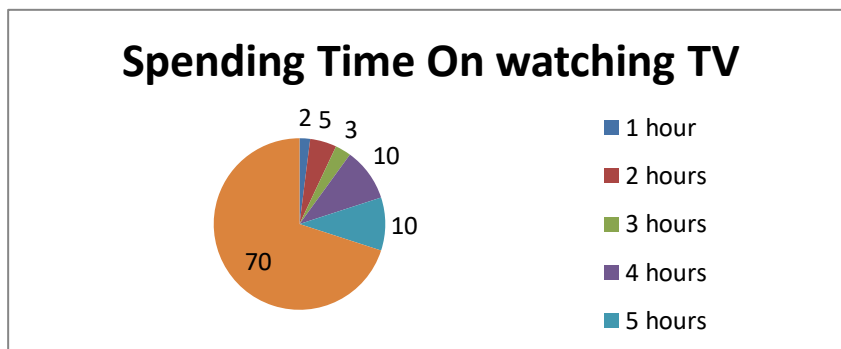
Spending Time On watching TV

2 5 3
10
10
70

■ 1 hour
■ 2 hours
■ 3 hours
■ 4 hours
■ 5 hours

Figure-11

Distribution of the respondents according to spend per day on health related TV Programmes

Figure-11 shows that 33.3% of people spent 1 hour per day on health related TV Programmes, 23.3 % of people were spent 3 hours per day , 28.2 % of people were spent 1 hour per day.
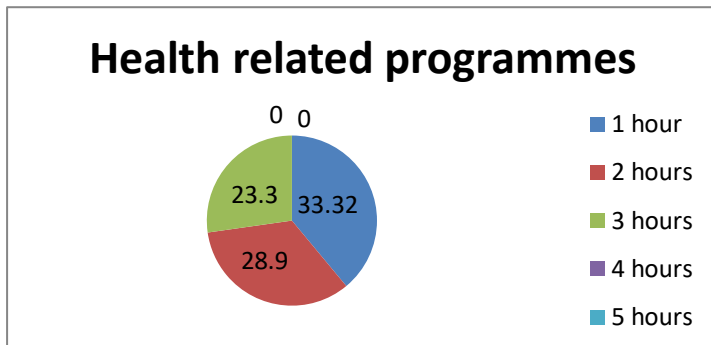
Figure-12

Distribution of the respondents according to spent on physical activity before lockdown

Figure – 12 shows that 50 % of people did not spend time on physical activity before lockdown and 20% of people were spent 30mintus , 7% of people spent 1 to 2 hours on physical activity, 3% of people were spent more than 2 hours on physical activity.
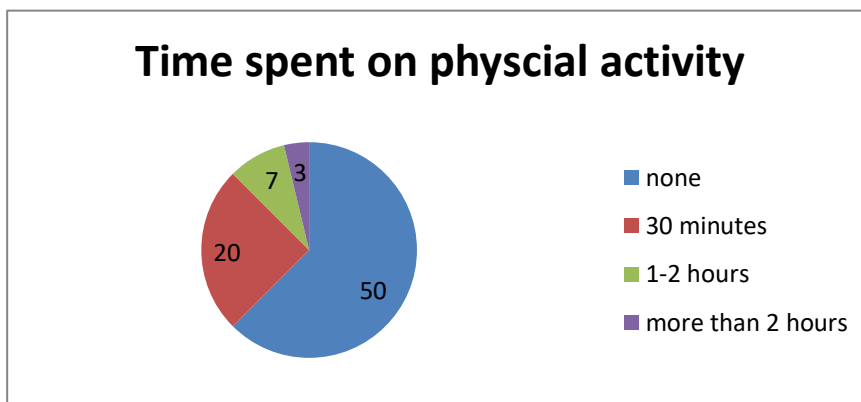

Figure-13

Distribution of the respondents according to physical activity

Figure-13 show that 40% of people didn't do any physical activity, 20% people were do yoga , 5% of people do other activity , 60% of people do pranayam ,10% of people do walk and rest 5% of people do meditation, and 5 % of people do other physical activity.
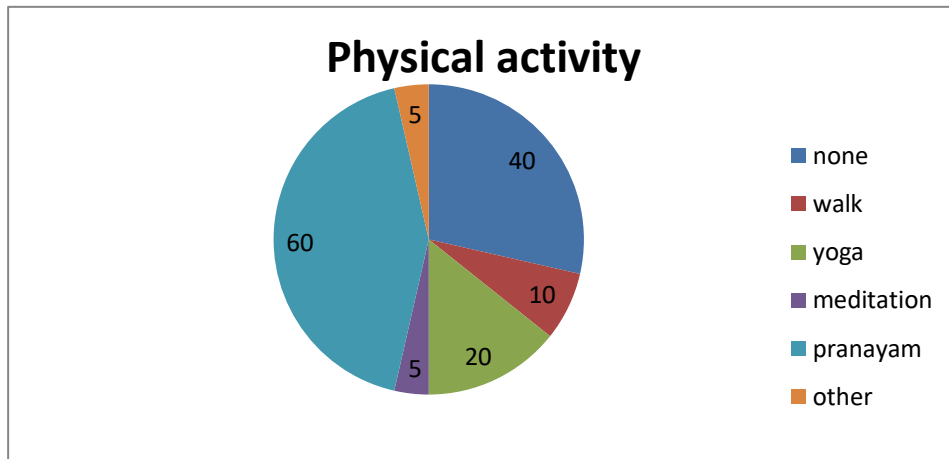
Figure- 14

Distribution of the respondents   according   to spend time per day in kitchen during lockdown

Figure – 14 shows that 60% of people spent one hour in kitchen, 15 % of people spent 2 hours in a day, 15% of people spent 3 hours in a day and 5% of people spent 4 hours in a day and rest of 5% of people spent more than 4 hours in a day .
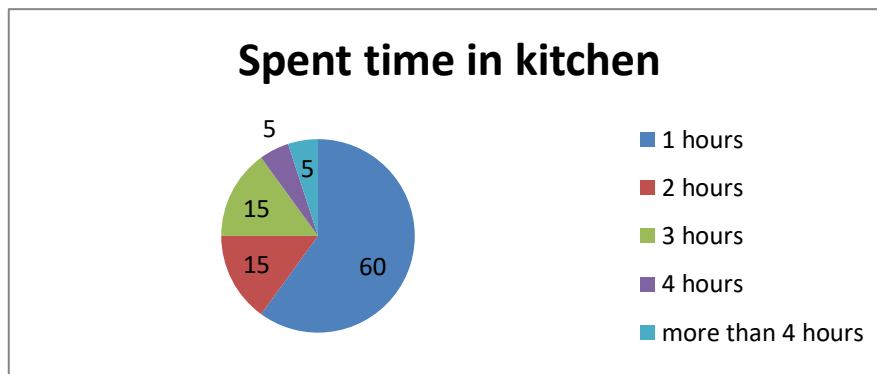

Figure- 15

Distribution of   the   respondents   according   to enjoy spending time in kitchen

Figure - 15 shows that 60% of people enjoy spending time in kitchen, 15% of people didn't enjoy spending time in kitchen and 25% of people sometimes enjoy spending time in kitchen.
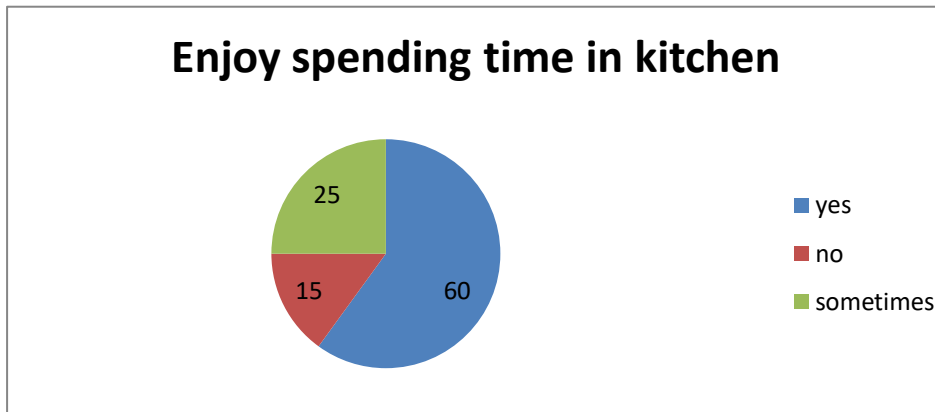
Enjoy spending time in kitchen

25	
15	60

■ yes
■ no
■ sometimes

Figure- 16

Distribution of the respondents according to hand washes on an average per day

Figure - 16 shows that 60% of people wash hands 5 to 10 times an average per day, 30% of people were wash hand 10 to 15 times an average per day and rest 10% of people wash hand more than 15 times in a day.
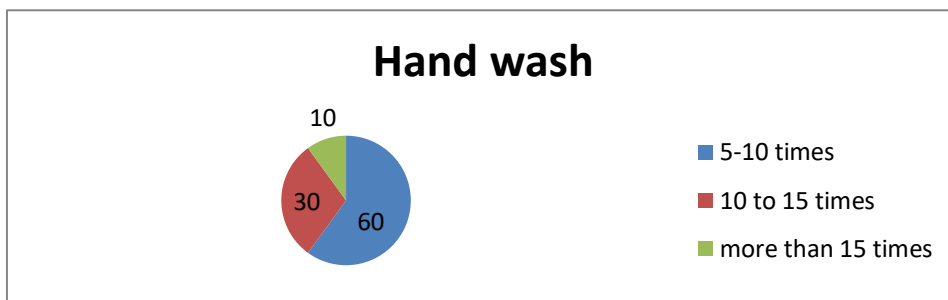
Hand wash

10
30   60

■ 5-10 times
■ 10 to 15 times
■ more than 15 times

Figure-17

Distribution of the respondents according to source of purchasing:

Figure – 17 shows that source of purchasing 50 % of people purchasing from Thela wala, 25% of people went to supermarket, 30% of people went to market and rest 5% of people called for home delivery.
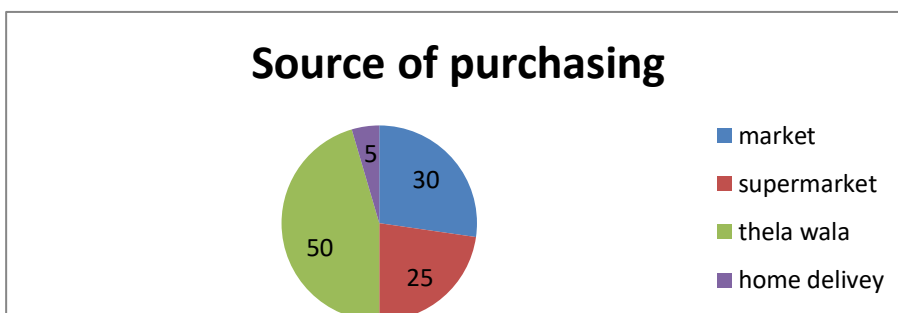
Source of purchasing

5
50   30
25

■ market
■ supermarket
■ thela wala
■ home delivey

Figure- 18

Distribution of the respondents according to grocery purchasing

Figure – 18 shows that 77.22% of people pursing food as per their need, 22.2 % of people do grocery purchasing limited and no one purchase excess .
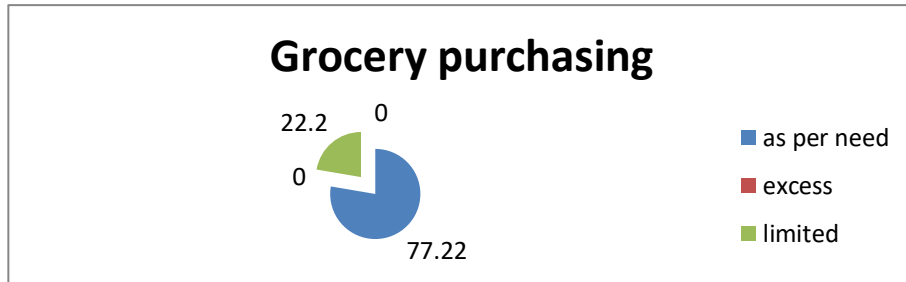

Figure-19

Distribution of the respondents according to clean food items

Figure – 19 shows that 50 % of people use plane water to clean food items, 30% of people use hot water to clean food items and 10% of people were used water with special cleaner, 5% of people soap water to clean food items and rest of 5% of people use soap water and hot water.
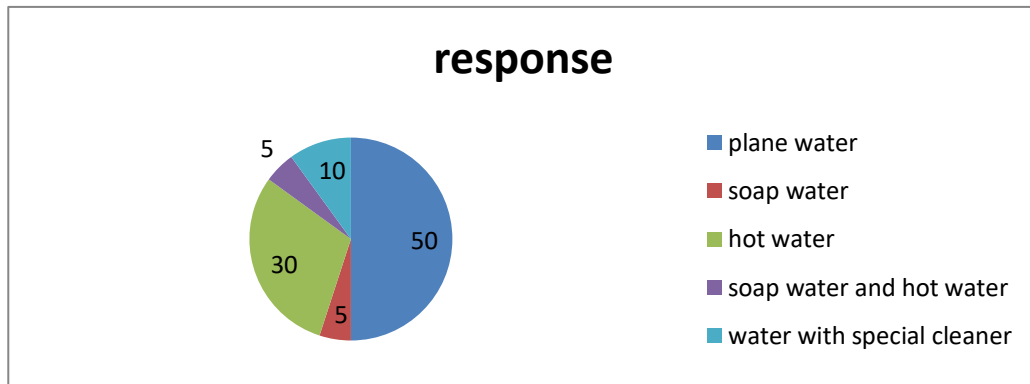

Figure - 20

Distribution of the respondents according to wear hand gloves while washing food items

Figure-20 shows that 72.8 % responded they do not wear glove while washing food items, 7.6 % of people responded yes and rest of 13 % of people use sometimes.
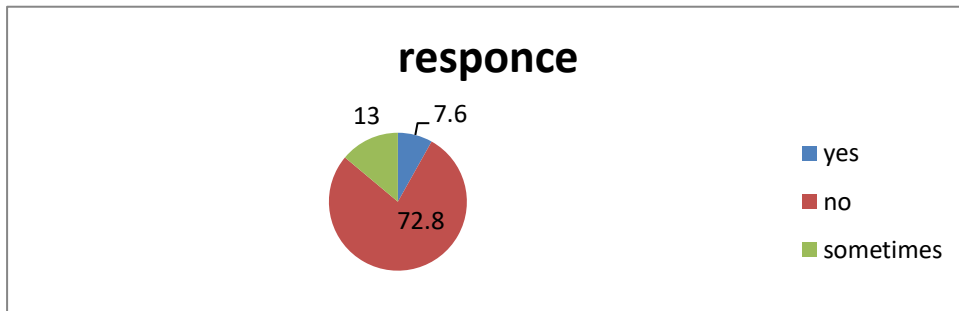
Figure 21

Distribution of   the   respondents   according   to preventive measure

Figure - 21 shows that people using different types preventions like 20 % of people like to stay at home, 2% of people do gargling, 20 % of people use face mask, 20% of people follow social distancing, 3% of people drink lukewarm water during these day. 10% of people washed their hand frequently and rest of 20 % of people used hand sanitizer that is alcohol based sanitizer.
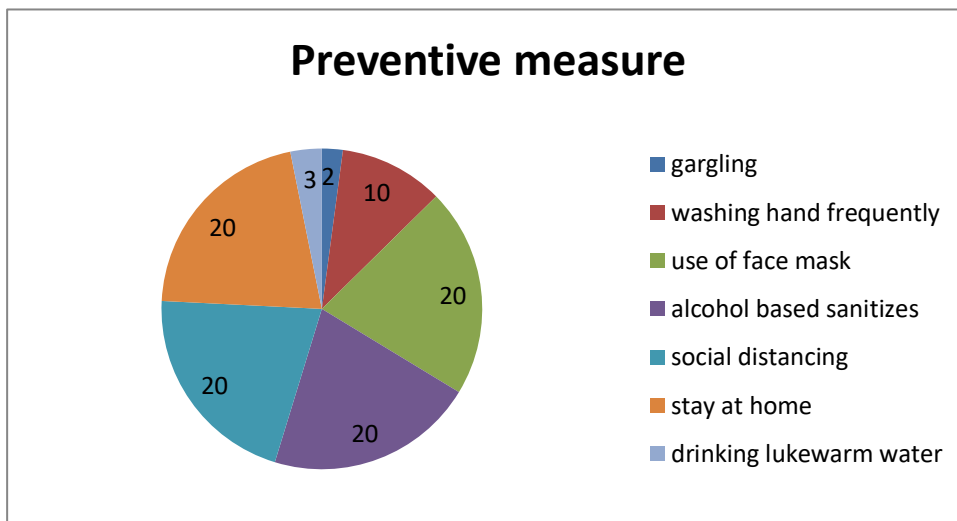

Figure- 22

Distribution of   the   respondents   according   to awareness regarding COVID - 19

Figure – 22 shows that 53% people were aware from this survey, 20% of people aware their parents, 14.4% of people aware their close once and rest of 7.8% of people aware neighbour.
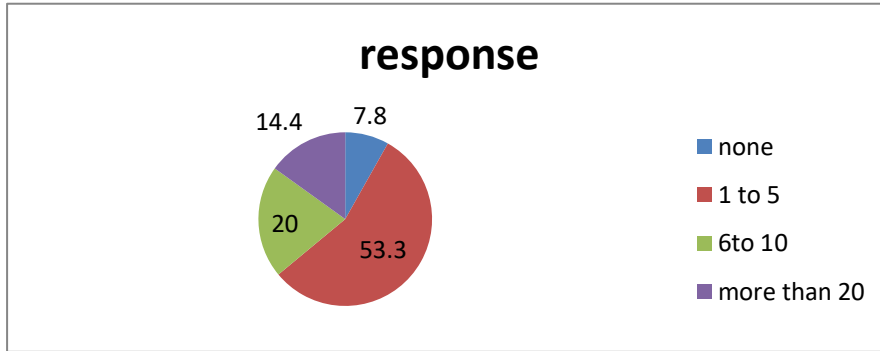
Figure- 23

Distribution of   the   respondents   according   to food choice

Figure - 23 shows that 25% of people use simple less oil in food, 15% of people like boiled food, 5% of people like anything to eat, 20% of people like to   use green leafy vegetable and 10 % of people like to use ready to eat food, 10% of people like to eat fried food.
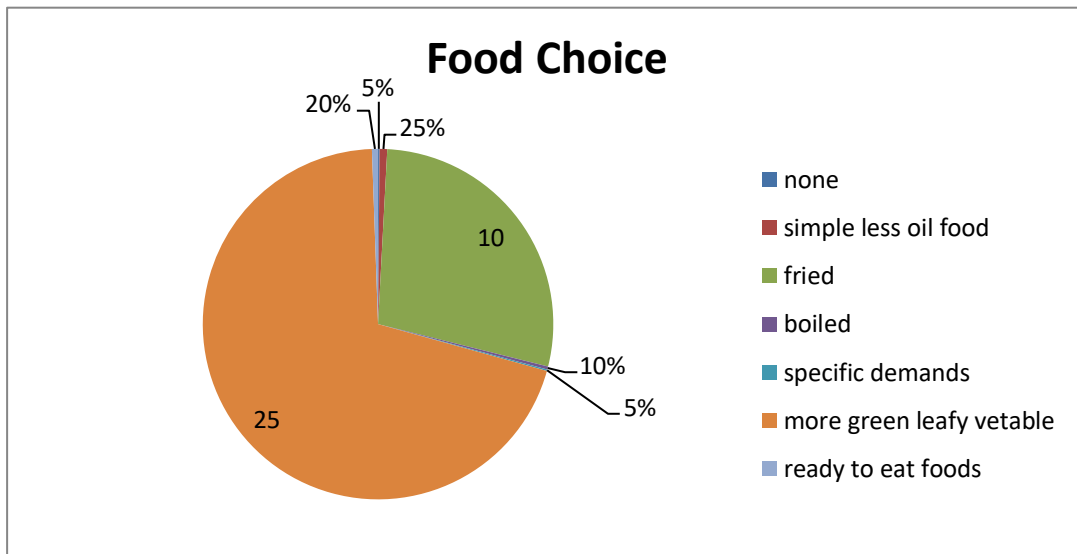

Figure-24

Distribution of   the   respondents   according   to   boost immunity

Figure -24 show that 20 % people having good quality of carbs, 50% of people having vitamin – c and 20% of people having minerals and rest 10% of people having vitamin a and d.
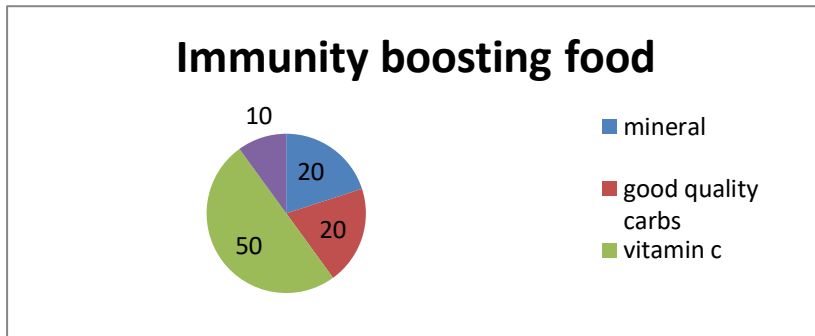
Figure- 25

Distribution of the respondents according to awareness of people

Figure – 25 shows that 51.9 % people were aware of immunity boosting foods, 18.5% of people still not sure about immunity boosting foods and rest of 14.8% of people don't know about foods.
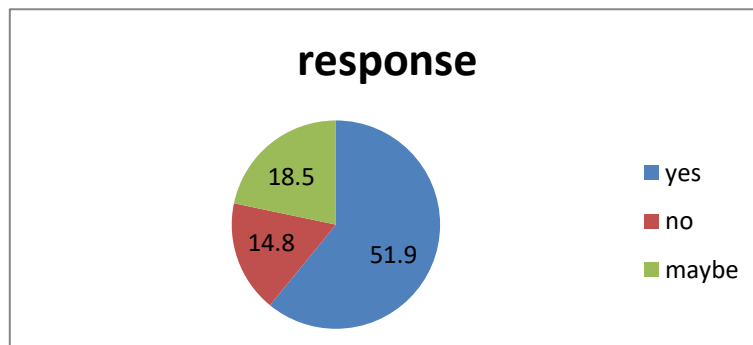

Figure-27

Distribution of the respondents according to food habits will be changed

Figure – 27 shows that in 40 % of people notice that food habits will be changed, 10 % of people felt decrease of food wastage, 20 % of people to felt time to change their habit now and 20 % of people feel food habits will be change too. 10% of people not sure about themselves and the rest of 10% of people seen no effects from this.
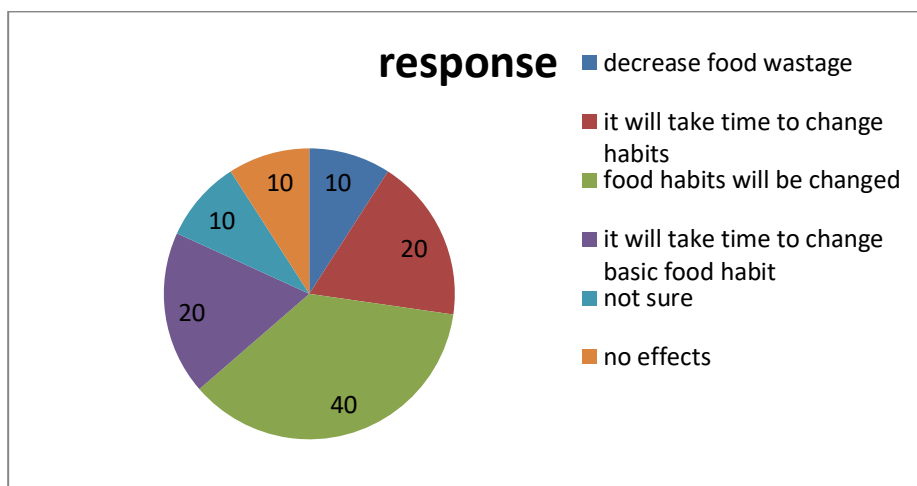
Limitation of the study: since it was probability sampling- sample random sampling, it did not display the conditions of cause and effect association. In addition, the study was limited to the Raipur city, which may not be representative of the rural area, only literate people participated and who have cell phones, laptop etc.

Conclusion: This survey shows that people aware of COVID – 19. They are following rules given by government. People learnt new thing about their food habits, they learnt that boosting immunity is great thing to achieve great healthy. People can do work from their home too during lockdown.

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Authors' contributions: the 'R' an Open source software is used for statistical computation in study and collected and analysed the data. Both authors were involved in the drafting of the manuscript and read and approved the final manuscript.

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Availability of data and materials: the datasets of this article are available from the corresponding author upon reasonable request**.**

Ethics approval and consent to participate: ethical approval for this study was provided by the Human Research for institutional Ethics Committee (IEC), School of studies in life Science, Pt. Ravi Shankar Shukla University Raipur. The study was conducted according to the guidelines laid down in the ethics and all procedures involving participants were conducted after obtaining agreement.

Consent for publication: Not applicable

Competing interests: The authors declare that they have no competing interests**.**

Reference:

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- COVID-19, Oxford English Dictionary (Online ed.), Oxford University press. April 2020. Retrieved 15 April 2020. (Subscription or participating institution membership required.
- Encyclopaedia of biomedical engineering. Amsterdam. ISBN 9780128051443.