

Original Research Article

An Investigation of Nutrition Awareness: A Field Survey At Rural Community, Jalgaon, Maharashtra

Abstract :

Background: ~~Covid~~ COVID-19 Pandemic had led to an unprecedented emergency which led to many transformations in all aspects of life including dietary practices. A good and balanced diet played a crucial role in prevention of disease and faster recovery. For a good dietary practice, knowledge and awareness is needed. ~~"The first step toward transformation is awareness," said Nathaniel Branden, psychologist, and author.~~ The purpose of this study ~~is~~ was to explore the awareness of good food habits and the nutritional content of everyday meals among ~~Rural-rural Communities~~ communities in Jalgaon district, Maharashtra.

Methodology/Methods: A structured questionnaire was designed to explore the daily food consumption and physical activities of 40 households from two rural zones in Jalgaon district, Maharashtra. The study also looked at people's understanding of what a balanced diet is and the concept/effects of malnutrition.

Results: Of those surveyed, it was found that 92% of the subjects have not even heard of the term "Balanced ~~diet~~". The BMI ranges of the sampled subjects were as follows: 31.43% have been observed as underweight ~~i.e. BMI below 18.5~~, 13.64% as pre-obese category, ~~i.e. BMI above 25~~. Lack of resources and ignorance about inexpensive good dietary habits may exacerbate hunger and bad health among rural populations.

Conclusion ~~-Government plans and efforts around Food Security will be more successful if raising public awareness about the significance of nutrition and food is the first step in this regard. The right to food and the right to health can only reach the rural areas when the awareness index in these areas is enhanced by utilizing all available tools and approaches.~~

Keywords: Affordability, Awareness, Nutrition, Traditional Food Habits

Comment [LT1]: Add a result comment regarding Balanced diet percentages and physical activity description as well, please add also the results of nutritional public awareness , how it was

Comment [LT2]: Please change this in light of the results you will add above .. it is very general

Introduction:

The World Health Organization on March 11, 2020, has declared the novel coronavirus (COVID-19) outbreak a global pandemic^[1]. During the pandemic, we were all forced by the unprecedented circumstances to focus on our bodies' immune systems, so as to combat against the deadly virus strain. In response, people focused on diet and healthy eating habits, a simple and cost-effective measure, as a remedy to target the situation^[2]. This was the moment when many began to think more deeply about it. There came a question concerning urban vs. rural responses to this increased knowledge of diet and nutrition^[3]. An urban resident with many resources could have learnt about the current dietary trends, however it was intriguing to see how rural places handled the problem with far fewer resources, financial assistance, and several other obstacles.

Methodology/Methods:

The present survey was carried out at two villages in Jalgaon District named 'KharchiKhurd' and 'RavanjeBudruk'^[4], selected by convenience non-random sampling (Figure 1). A sample of 40 households, 29 from KharchiKhurd and 11 from RavanjeBudruk, was surveyed to help understand and research crucial factors such as daily dietary consumption, the number of hours spent engaging in strenuous physical activity, and so on. The survey sample was designed to represent a variety of family types, genders, and ages to cover a wide range of lifestyles and eating habits.

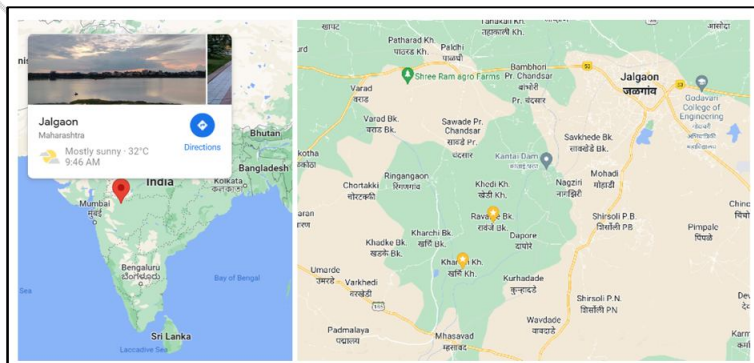


Figure 1: Location of study area Kharchi and Ravanje, Jalgaon, Maharashtra as located on the map.

Results :

Based on the survey following are the key observations -

Socio-demographic profile:

Out of surveyed sample, 85% were nuclear and rest 15% joint family. Gender wise profile showed that around 80% were male and 20% were female. Age wise distribution showed that the individuals ranged from 24 years to 82 years. Majority of the individuals (7) were of the age 45 years.

Education wise profile of the surveyed households showed that, majority (14, 35%) had the education up to Primary Schooling, followed by Higher Secondary (11, 27%). Around (8, 20%) were illiterate.

Awareness:

It was found that around 92 % have not heard of the phrase ‘Balanced Diet’ and around 82% have not heard of the phrase ‘Malnutrition’.

Nutritional status and Physical activity:

31.43% of the sample subjects have been observed as underweight i.e. BMI below 18.5 along with 13.64% as pre-obese category, i.e. BMI above 25. (Table 1)

Table 1: Percentage of households in each BMI category

BMI Range	Percentage (%)
Underweight -BMI Below 18.5	31.43%
Normal - BMI 18.5 to 25	54.94%
Pre-Obese - Above 25	13.64%
Total	100%

It was noted that the individuals used to around 8 hrs. of physical activity per day. (Figure 2)

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Comment [LT6]: Please indicate if this was the mean or not ???

Comment [LT7]: Please include in a table all questions were asked to determine awareness (if there) and what were the response's answers. And comment on your table briefly

Comment [LT8]: Are you sure these two questions only enough to determine if they have nutritional awareness or not ???

Comment [LT9]: Again the results not enough You mentioned only the BMI, give more detailed results, convert Figure4: to a table And include **Dietary patterns** as part of nutritional status Also, **Physical activity** give a table describing all other classification (mild, moderate, vigorous)

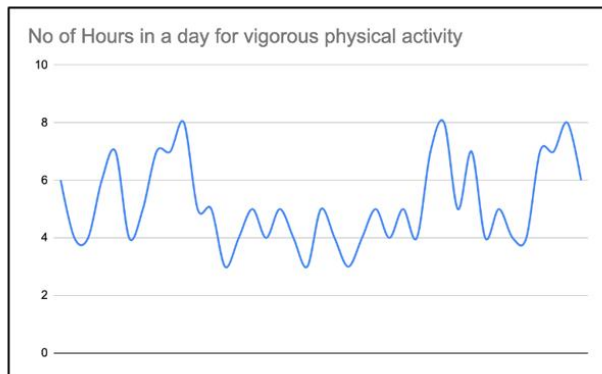


Fig 2: Number of hours of Physical Activity done by subjects

Addiction to tobacco and alcohol:

Around 27.5% ~~1/4~~ of sample ~~size, i.e., 27.5% has been~~ were addicted to tobacco or alcohol.

Dietary frequency and pattern:

It was observed that rural communities still follow traditional wisdom of a balanced diet from ancestral roots. Due to poverty and lack of resources, they tend to stick to whatever is affordable and locally available. (Figure 3).

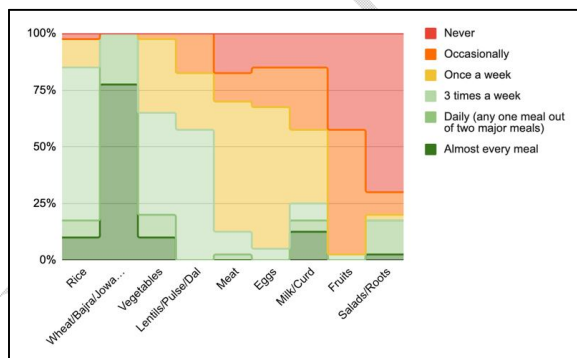


Figure 3: Frequency of food items consumption by the surveyed sample

A typical Indian, carbohydrate-rich diet pattern has been observed with the consumption of Rice or Wheat almost for every meal along with vegetables. Consumption of protein is as per availability and affordability. Due to the affordability factor, it is well observed that expensive items like Fruits, Curd, or Salads have been consumed mostly occasionally or never.(Figure 4)

	Rice	Wheat/Bajra/Jowar/Chapati	Vegetables	Lentils/Pulse/Dal	Meat	Eggs	Milk/Curd	Fruits	Salads/Roots
Almost every meal	10.00%	77.50%	10.00%				12.50%		2.50%
Daily (any one meal out of two major meals)	7.50%	22.50%	10.00%		2.50%		5.00%		15.00%
3 times a week	67.50%		45.00%	57.50%	10.00%	5.00%	7.50%	2.50%	
Once a week	12.50%		32.50%	25.00%	57.50%	62.50%	32.50%		2.50%
Occasionally			2.50%	17.50%	12.50%	17.50%	27.50%	55.00%	10.00%
Never	2.50%				17.50%	15.00%	15.00%	42.50%	70.00%
	High Carbs		High Nutrients	High Protein			High Nutrients		High Fiber

Figure4: Surveyed sample consuming a particular food item with a certain frequency

Discussion:

The National Nutrition Monitoring Bureau (NNMB) and the National Institute of Nutrition (NIN), Hyderabad have carried out extensive diet and nutrition surveys in 12 states of the country. These surveys indicate that the diets of the rural population are inadequate and deficient in most of the nutrients^[5].

Parallel to the above study, it was too found in our survey study that the diets of the sample subjects are not balanced and lack the necessary nutrients.

The government of India has been concerned about these conditions and has taken many initiatives like National Nutrition Policy ^[6], National Food Security Act^[7] and the latest National Nutrition Mission or POSHAN Abhiyan^[8].

POSHAN Abhiyaan is a multi-ministerial convergence mission with the vision to ensure the attainment of a malnutrition-free India by 2022. The objective of POSHAN Abhiyaan is to reduce stunting in identified Districts of India with the highest malnutrition burden by improving utilization of key Anganwadi Services and improving the quality of Anganwadi Services delivery. It aims to ensure holistic development and adequate nutrition for pregnant women, mothers, and children.

There are several schemes directly/indirectly affecting the nutritional status of children (0-6 year's age) and pregnant women and lactating mothers. Despite these, the level of malnutrition and related problems in the country is high. There is no dearth of schemes but a lack of creating synergy and linking the schemes with each other to achieve a common goal. POSHAN Abhiyaan through robust convergence mechanism and other components would strive to create synergy.

It is observed that though major national level Abhiyan is going on in the country, there is a lack of awareness of the scheme and the overall importance of nutrition and food habits.

Conclusion:

Rural households, despite a daily average of 4-6 hours of strenuous exercise, lack the understanding of the significance of a balanced diet. Few people are aware of the negative impacts of poor nutrition, but due to a scarcity of resources, they are not paying attention to their daily dietary requirements.

People in the nation need access to local, traditional, and economical nutrition options. Government programs may have offered aid by subsidizing food, offering supplements, or even supplying one meal at schools, but there has been a general lack of information and access to inexpensive nutrient-rich food recipes, balanced diet, nutrition, and consumption of seasonal foods/fruits.

With the support of the newest technological tools and techniques, an awareness campaign will work hand in hand with government initiatives to achieve multifold penetration of people-centric programs to realize the goals of food security and everyone's right to health.

UNDER PEER REVIEW

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