

Awareness of Ideal Body Weight among Adolescents During COVID-19 lockdown with a View to Develop an Information Pamphlet

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Abstract

Staying at home during COVID-19 lockdown, there is every chance that adolescents will go on a binge and eventually come out gaining weight. A descriptive survey research design was adopted among 30 adolescents selected by purposive sampling technique in Khandagiri, Bhubaneswar, Odisha. The primary objective was to assess the level of knowledge among adolescents regarding awareness of ideal body weight during lockdown. A self-structured online questionnaire packet was administered to collect demographic information, dietary pattern & lifestyle and knowledge questionnaire on ideal body weight and its management & complications. Findings revealed that 53% were male and 40% belong to 17-18 years. 33% adolescents were studying Std-XI and 47% belonged to nuclear family, 36.6% had middle class family income. Majority 70% of adolescents were non-vegetarian and 60% were ordering food online. 93% of them consumed fast food, sweets, baked food items. 63% of adolescents had adequate knowledge on ideal body weight. Majority 43% of them slept for 8-10 hours/day during lockdown. In the area wise distribution the item "Dietary management of ideal body weight" reveals highest mean score 7.3. There was association between knowledge score of adolescents with type of family and family monthly income. The results show that the nutrition education intervention is required to create awareness and develop concern about their body image and complications arising due to fast food consumption by ordering online.

Keywords:- COVID-19, Lockdown, Physical activity, Lifestyle

Introduction

The World Health Organization (WHO) on March 11, 2020 declared the outbreak of the novel

2019 coronavirus disease (COVID-19) a global pandemic^{1,2}. India has recorded 216,919 total confirmed cases, 6,075 deaths, 104,107 cured cases, according to Union Ministry for health and family welfare³.

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Considering the factors emerging due to COVID-19 and in order to stop a fast-growing transmission of the disease and the subsequent overwhelming of hospitals and health care systems, several countries have opted for strict lockdown

measures. The government declared lockdown measures on March 17th, requiring the closure of all but essential public places, businesses and services, including schools and universities, workplaces, non-food shops, open and green spaces, recreational spaces and local (outdoor) food markets. The population was required to stay home and thus led to the disruption in their daily routine⁴.

Adolescence, transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19⁵. Adolescents comprise 21% of the world's total population (about 243 million). About 1.3 million adolescents died from preventable or treatable causes during 2012 as per WHO Reports^{5,6}.

Adolescents are country's adults for tomorrow. Less knowledge on ideal body weight causes adolescents suffer from some nutritional problems such as obesity or malnourishment. Factors influences obesity in adolescents includes sedentary behavior, easy access to fast-foods and much use of vehicles and online apps^{7,8}.

Studies showed that 40% of the participants gained up to 5 kg and 16% added 2.1-5 kg. Lifestyle may be substantially changed due to the containment measures, with the consequent risk of sedentary behavior⁹. The height and weight are two significant perspectives on which the body image is based¹⁰.

Eating a healthy diet is very important during COVID – 19 pandemic. Healthy diet are important for supporting immune system. Good nutrition also can reduce the likelihood of developing other health problems, including obesity, heart disease, diabetes and some type of cancer¹¹.

Objectives:-

- To assess the level of knowledge among

adolescents regarding awareness of ideal body weight.

- To find out significant association between knowledge score of adolescents regarding awareness of ideal body weight with demographic variables.
- To develop an information pamphlet.

Hypothesis:-

H1: There would be significant association between knowledge scores of adolescents with selected demographic variable.

Research Methodology

A quantitative research approach with descriptive survey research design was adopted among 30 adolescents selected by purposive sampling technique in Khandagiri Vihar, Khandagiri, Bhubaneswar, Odisha.

Inclusion criteria

- Adolescents adhered to COVID -19 lockdown rules by State Government & Govt. of India.
- Those studying from Std 10th- 12th.

Tool Construction

A self-structured online questionnaire package was administered. The following steps were taken to develop the tool: Review of literature, opinion and suggestion from experts and the investigator own experience in the community field. The tools consist of the following:

Section-A:- a) Demographic information consist of age, gender, religion, type of family, educational status, Per Capita monthly income. b) Dietary pattern includes preparation of food, Fast food/Sweets/Baked food items consumption and number of meals/day, online order;

c) Lifestyle consists of hours of sleep and physical activity.

Section-B:-Close ended questionnaire in the form of multiple choice questions (MCQ) was developed in this study. Knowledge questionnaire consist of meaning, classification, factors affecting ideal body weight, dietary management, lifestyle management(exercise and yoga) for ideal body weight and complications of obesity and malnourishment. This section has 30 items.

Scoring procedure:To assess the level of knowledge of adolescents, there were four distractions given in each item. Each correct response is awarded score of 'one' and wrong response score of 'zero'. The level of knowledge was grouped into items: Inadequate (0-10 scores), Moderately adequate(11-20 scores), Adequate(21-30 scores) based on knowledge scores.

Data collection procedure

Written permission was sought from the President, KhandagiriViharUnayanaSamiti. With prior informed consent from each participant was obtained assuring them about the confidentiality of the information. Virtual Interview Schedule (online video call platform) was used as method of collecting data. The investigator distributed information pamphlet regarding Ideal body weight through Whatsapp and e-mail. All participants were very cooperative and the investigator expressed her gratitude for their cooperation.

Analysis And Interpretation

Table 1: Distribution of subjects according to the socio determinants

N=30

Socio-determinants	Frequency (f)	Percentage(%)
Dietary Pattern Vegetarian Non-Vegetarian	9 21	30 70
Intake of Food (No. of times/day) 3 4 5 6	7 8 12 3	23.3 26.6 40 10
Preparation of food At home Order online (using food apps)	12 18	40 60

Cont... Table 1: Distribution of subjects according to the socio determinants**N=30**

Fast food/Sweets/Baked food items consumption		
Yes	28	93.3
No	2	6.7
Ordered fast food online		
Rare	5	16.6
Sometimes	6	20
Often	8	26.6
Always	11	36.6
Hours of sleep		
5-7	9	30
8-10	13	43.3
11-13	8	26.6
Physical Activity		
Increased	4	13.3
Decreased	23	76.6
Not Modified	0	0
Don't know	3	10

Findings from socio-demographic variables revealed that 40% belong to 17-18 years and 53% were male. Majority 50% were Hindu. 33% adolescents were studying in Std-XI and 47% belonged to nuclear family, 36.6% had middle class family income.

Table No. 1 shows that Majority 70% of adolescents were non-vegetarian and 23% were consuming (breakfast, lunch, dinner) thrice a day, maximum 40% of adolescents took meals 5 times

a day and 60% were ordering food online where as 40% prepared food at home. 93% of adolescents consumed fast food, sweets, baked food items. 63.6% always ordered fast food online where as 16.6% rarely ordered fast food online.

Majority 43% of them slept for 8-10 hours/day during lockdown and 76.6 % had decreased physical activity.

Table no-2 Frequency and Percentage distribution of adolescents according to their level of knowledge**N=30**

Levels of knowledge	Score	Score in (%)	Frequency	Percentage (%)
Inadequate	0-14	<49%	4	13.3
Moderately adequate	15-22	50% - 74%	07	23.3
Adequate	23-30	75% - 100%	19	63.3

Table no.3:- Area wise distribution of mean, mean percentage of knowledge score regarding ideal body weight**N=30**

Area wise distribution	Mean	Mean (%)
Meaning ideal body weight	2.4	80
Classification of ideal body weight	1.7	34
Factors affecting ideal body weight	1.8	90
Dietary management of ideal body weight	7.3	66.3
Exercise and Yoga for ideal body weight	3.1	62
Complications of obesity and malnourishment	3.0	75

In the area wise distribution from Table no-3 the item “Dietary management of ideal body weight” reveals highest mean score 7.3. The highest mean percentage was 90% for the item “Factors affecting ideal body weight”.

Table no.4: - Association between socio-demographic variables and the knowledge score N=30

Demographic variables	Chi-square value	Tabulated value $p \leq 0.05$	Inferences
Age	5.3	9.49	Not significant
Sex	1.18	5.94	Not significant
Education	7.53	9.49	Not significant
Type of family	26.68	9.49	Significant
Religion	2.8	9.49	Not significant
Family monthly income	11.35	9.49	Significant
Dietary pattern	3.83	5.99	Not significant

Table no.4 depicts Chi-square(χ^2) values were 26.68 and 11.35 respectively at 0.05 significant level which implies there was association between knowledge score of adolescents with socio-demographic variables-type of family and family monthly income.

Conclusion

There are many contributing factors that lead to such weight gains. However, it's pretty much essential to identify the right mechanism to reduce body fat. There was low level of physical activity and perceived weight gained during the lockdown period. A healthy body and calm mind is the only key to fight against COVID. So making an effort for 10 or 20 minutes of workout at home is the only fitness mantra to persuit.

Ethical Clearance- Taken from Institutional Ethical Committee

Source of Funding- Self

Conflict of Interest- Nil

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