



Prevalence of obesity and causative factors in school going children - A statistical study.

Statistics

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ABSTRACT

Aim & Objective: Yoga is originated in our country, yet not able to reach the present younger generations at the school level completely. Our present study focuses on the causative factors of obesity in school going children, such as mode of transport, type of food preferred, co-curricular activities encouraged at school, family meal etc. 27 schools were chosen for collecting the data and 243 samples were collected. Convenient simple random sampling procedure is adopted. The study revealed that there is some significant difference between the type of food consumed and the co-curricular activities. Physical activity of the student and type of food intake plays an important role in the proper growth of the child. Also observed that family environment inculcates healthy eating habits in the children. The study also shows that the students are trained in a mechanical way for producing ranks in prestigious institutions from their schooling level.

KEYWORDS:

Obesity, Yoga, Family Meal, Co-Curricular Activities.

Introduction:

Globally, it is observed that the prevalence of childhood obesity has risen in recent years. Generally, when we look at people immediately our focus goes towards their physical appearance viz. height, weight and complexion.

In recent years, there has been an increasing interest in describing the physical fitness to health benefits and wellness. If the person is remarkably thin or fat, we call them underweight or overweight. Yoga will provide suggestions for both underweight and overweight persons. Across the globe most of the countries identified the importance of yoga and started practicing yoga. All that one's notion is people who eat more will be obese and those who eat less will be underweight. As such those who appear obese may not have much intake but some health associated factors may play a significant role. This study mainly focuses on the associated factors of obesity in school going children. The meaning of "Food" has changed from a means of nourishment to a market of life style and a source of pleasure [5]. Actually this is a matter of debate. Children's food choices are also influenced by content of family meals. The growth of school going children will be proper if they are given balanced diet, parental care and attention towards their problems. Parents are the first teachers and particularly mother. In an observation it is noted that if mothers are educated then the sons will be taller than their fathers and daughters will be taller than their mothers. This shows that a healthy and educated mother begets healthy and educated children. Though mother is educated other parameters like family problems, financial problems and other problems trouble her to give complete attention towards the children. This may show some significant difference in the growth factors like heights and weights of children. Now-a-days educated mother is busy with her profession. She plans to spend her time with her family and kids, yet sometimes she may not be in a position to balance her professional life and family life called as work-life balance. At times she has to prefer outside food, to satisfy the requirements of children. As it is a known fact that outside food is stored for a longer duration, they use preservatives which will effect the hormones in growing children resulting in health disorders. To identify the causative factors for the obesity in school going children the study was conducted in twin cities of Telangana, the youngest state of India. In the present study the prime concern was on the mode of transport used by the children to reach the school, their food habits, their physical activities at school and at home, the duration of time spending with family and electronic gadgets. In the survey the samples were collected from 27 different schools in twin cities having different types of curriculum like ICSE, CBSE and SSC.

In olden days the Gurukul system of schools in India made remarkable achievements in the personality development of the child. Gurukul is a type of residential school where the students are trained in the skills required for the life. The students are supposed to perform their own daily chores. The teacher is treated as God and his instructions are followed very sincerely, whereas the Guruvini (wife of the Guru) takes

care of the children like a mother. Now-a-days the educational system has become mechanical. The educational institutions appear to be mainly factories turning out graduates [4]. School is considered to be a second home and teachers are like parents to the students. The schools in the present days are like semi residential institutions where the children go to school before sun rise and come back home after sunset. Students spend their maximum time at school; hence do not find any time for physical activities. National Institute of Nutrition, said at least 15% school children in Hyderabad are obese, mainly due to consumption of junk food, and almost 85% of such kids were likely to grow up to become obese men and women[3]. Any student to become an all-rounder should have good command over the subject along with proper physical and mental health. To improve the mental abilities and enhance their skills the children should be exposed to different types of books other than their subject books. Recently our beloved Prime Minister Sri Narendra Modiji suggested to gift good books to improve the reading habits of a person. Students must be trained in value based education, to understand the selfless service provided by the nature. Parents and Teachers should take the responsibility of the children to build their character by inculcating the habits like respecting elders, helping the fellowmen, planting trees, protecting the nature from pollution etc.

Materials:

A questionnaire is prepared for the purpose of the study. A pilot survey was done to check the validity of the questionnaire. After confirming the questions are suitable for the purpose of the study, a survey was conducted to collect the data by direct interview method, where the enumerator visits the respondents and collects the data personally. A sample of size 243 is collected from Hyderabad and Secunderabad, the twin cities of Telangana State.

Methodology:

Technically a simple random sampling is a set of n objects in population of N objects where all possible samples are equally likely to happen. Random samples are used to avoid bias and other unwanted effects. This survey is based on 27 item questionnaire given to students of selected schools for the purpose of study in the class group of 6th to 10th. Demographic factors such as age, gender, height, weight are taken into account.

The collection of data results in a large volume of raw data which must be reduced into homogeneous groups to get meaningful relationships. Tabulation of the data is a process which is essential to facilitate comparison between different variables. The data is checked for normality. The data collected for the survey is observed to be normal. To find the different factors resulting in obesity, the measure of correlation was used. The questions were grouped to form 4 different variables showing the lifestyle of the students studying in different schools. The correlation table is displayed below.

Results:

Table 1: Table of Correlations

	T1	T2	T3	T4
T1	1	0.2096	0.1942	0.2454
T2	0.2096	1	0.1259	0.1381
T3	0.1942	0.1259	1	0.1294
T4	0.2454	0.1381	0.1294	1

T1: Daily routine of the students.

T2: Nature of school environment.

T3: Personal Interests of the student.

T4: Spending evening time.

From the above table we observe a positive correlation between the variables studied, though the correlations are not remarkably high.

Table 2: ANOVA Table

S.No.	Variables under study	p-value
1.	Daily routine of the students	0.000
2.	Nature of school environment	0.000
3.	Personal Interests of the student	0.000
4.	Spending evening time	0.000

From the above ANOVA table it is observed that the schools that are practicing yoga showed better results in overall development of the student and also observed that the concentration levels are improved. We observe that the nature of the school environment shows an effect on the personal interests of the student to have good inclination for their interest. Also we can say that a school which gives importance to the all-round development of the child improves the physical and mental growth of the child.

Discussion:

This survey revealed that parents also must attend the programs like good parenting, because in olden days when we had a culture of joint families, children use to learn sharing, caring and joyous moments. For the past 4 decades it is observed that nuclear families have crept in and past one and half decades corporate schools started flourishing and that showed an impact on the regular system of education in a different way. School timings were changed drastically and common kitchens are encouraged. Students prefer canteen food or school meals. This is one of the factors for obesity. Personal care of the family members improves the healthy growth of the children. It is advisable to measure the growth of a child in terms of behavior, knowledge and decision making skills rather than measuring in terms of ranks and marks. A student is first identified by the character. Family dining time is a good time to monitor the student. The students should be encouraged to spend their time with the family members rather than electronic gadgets.

It is not advisable to have dinner while watching T.V. The elderly people at home can engage the children to improve the skills of their interests. This is how the bonding between the family members is strengthened and values are inculcated in children. Children should be told value based short stories during dinner time or sleep time by the family members. Then the future generation will grow into responsible citizens of our country.

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