

IMPACT OF LIFESTYLE AND FOOD HABITS ON CHILD HEALTH: AN EMPIRICAL STUDY OF SCHOOL CHILDREN IN KERALA

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ABSTRACT

Child health is very important for building a healthy nation. However, Changing life style, busy school schedule and junk food habits affect the healthy life of children. Hence the present study focuses on the impact of lifestyle and food habits on child health. The study observes that school children have less physical exercise. Eating out habit, junk food and bakery food consumption is very common. Majority of students have not gone through medical tests. Around one fourth of the sample group of school children used in the study has overweight/obesity. High BMI is found among urban children. Thus the study validates the hypothesis and concludes that life style and food habits influence the healthy life of children. Gender wise and region wise evaluation support this conclusion. Hence the study suggests giving more priority to child health in school curriculum. Frequent and free medical checkups can be conducted at schools by bringing lab to schools. Keeping medical record for each child and frequent monitoring of health status will be useful.

Keywords: *Life style, food habits, BMI, obesity, child health*

1. Introduction

Child health is very important for building a healthy nation. Because of this reason, good health for children has to be ensured. Internationally child health has approved as the most important indicator for the development of the world. In every country the governments take efforts to ensure good health condition. Hospitals, medical facilities, vaccination etc. are meant for creating healthy children. However, children are facing a lot of health issues today. According to the World Health Organization (WHO), 43 percent of Indian children are underweight. Statistics sourced from the *Indian Journal of Endocrinology and Metabolism* (February issue, 2018) reveal that between 5.74 per cent and 8.82 per cent of schoolchildren in India are obese. In urban south India, 21.4 per cent boys and 18.5 per cent girls aged 13-18 are either overweight or obese. By 2025, India will have over 17 million obese children and stand second among 184 countries where the number of obese children are concerned, says a study published in *Paediatric Obesity*, an international journal (Times of India, Oct 10, 2016 and May 28, 2017).

2. Review of literature

There are several studies in the world regarding the issues of life style and food habits and their influence on health. The present study has reviewed some of the studies. This section gives an overview of such studies. According to World Health Organization, (World Health Statistics - Global Health observation Data, 2014) fast food consumption is definitely harmful to child health. Children who eat fast food have higher intake of energy, fat, saturated fat, sodium, carbonated soft drink, and lower intake of vitamins A and C, milk, fruits and vegetables than those who do not take fast food. According to WHO, 60% of related factors to individual health and quality of life are correlated to lifestyle. Millions of people follow an unhealthy lifestyle. Malnutrition, unhealthy diet, smoking, alcohol consuming, drug abuse, stress and so on, are the presentations of unhealthy life style that they are used as dominant form of lifestyle. A study report of WHO (2016) revealed, an estimated 41 million children under the age of 5 years were overweight or obese. Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. Nearly half of the children under 5 who were overweight or obese in 2016 lived in Asia. Over 340 million children and adolescents aged 5-19 were overweight or obese. Asgary S and others (Title of article is *Evaluation of fattyacid content of some Iranian fast foods with emphasis on trans fatty acids*. Asia Pac J Clin Nutr. 2009) showed that diet with high sugar, salt, saturated fat and calorie is responsible for disabilities like obesity, hypertension, and impaired glucose tolerance. In Kerala also school children are falling prey to lifestyle diseases in increasing numbers. Obesity is a complex condition among school children in Kerala. A study conducted by Cherian A T, Cherian S S and Subhiah S, (Title of article is *Prevalence of obesity and overweight in urban school children in Kerala, India*.

Authors are from Department of Pediatrics, Lakeshore Hospital, Kochi) revealed that there is prevalence of obesity and overweight was found to be higher in the high income group and among girls. The health issues of school children are associated with the life style and food habits. Lack of exercise, lack of physical works, getting sunlight etc create a lot of health issues. Similarly fast food, bakery food, junk food and eating out habits are crucial for worsening health problems of school children in Kerala today.

From the above literature and prevailing studies, it is clear that life style and food habits play crucial role in determining children’s health conditions. Changing life style, busy school schedule and fast food habits can lead to obesity, vitamin deficiency etc. In Kerala, junk foods are widely available by the sides of schools. School canteens are also providing such bakery and junk foods for children. Junk foods, bakery foods, and life style of today’s children deeply influence their health condition. Hence the present study focuses on the impact of lifestyle and food habits on child health in Thiruvananthapuram district in Kerala.

3. Objectives and methodology of the study

Present study is based on the following specific objectives

- To understand the life style and food habits of children
- To assess the impact of life style and food habits on child health

The main purpose of this study is to understand the impact of lifestyle and food habits on child health. For this purpose the area of study has been selected as Thiruvananthapuram district in Kerala. The study is based on primary data. Data has been collected at random. A sample of 300 students is taken for the study. Collected data was analyzed by using tables, diagrams, percentages, average etc.

4. Data analysis and discussion

4.1 Time distribution of children

In order to understand the life style of school children, questions related to time allotted for different activities are asked. They include hours of sleeping, travelling time to school, time spend for recreational habits, manual works, jogging, washing etc. Using the given data, time distribution of children is calculated. This is done in order to know about their habits in a day. The time distribution of children is calculated from the given data shows that on an average children sleep 7.50 hrs per day. More time in rural areas. Travel time and manual works are also more in rural areas. Urban students spent more time for own study/tuition. Recreational screen time is 2.175 hours for the total sample but comparatively more among urban children.

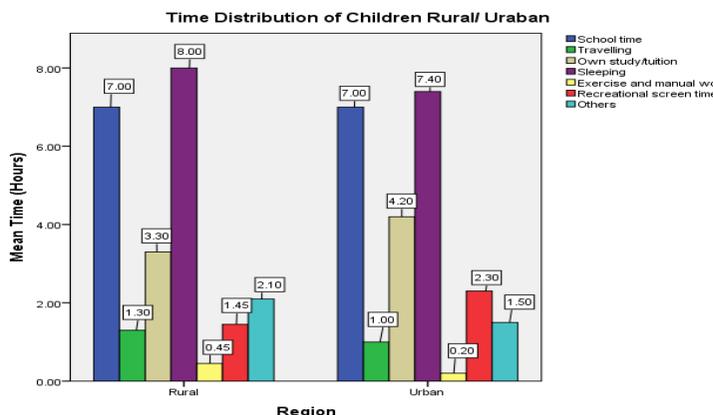
Table 1

Time distribution of children (Average time in hours)

Activities	Rural children	Urban children	Total sample
School time	7	7	7
Travelling	1.30	1.0	1.15
Own study/tuition	3.30	4.20	3.55
Sleeping	8.0	7.40	7.50
Exercise and manual works	0.45	0.20	0.325
Recreational screen time	1.45	2.30	2.175
Others	2.10	1.50	2.0

Source: Primary data

Figure 1



Source: Primary Data

4.2 Life style of children

Life style is the typical way of life of an individual, group, or culture. In other words its a particular way of living : the way a person lives or a group of people live.¹ In this section we analyse the life style of children with respect to different activities. Various activities of school children are given in table 2. It can be seen that only 30 % student engage in manual works outside. In rural areas, it is 39% but in urban areas it is only 21%. Habit of washing own clothes is also less. It is more among rural children than among urban children. 71 % children have a practice of jogging or walking to school. This rate is very high in rural areas 79 %. Nearly half of the children are involved in physically active play and sports. Large number of children has good habit of brushing twice a day.

Table 2
Life style of children

Activities	Rural		Urban		Total	
	Number	%	Number	%	Number	%
Manual works outside	58	39	32	21	90	30
Habit of washing own clothes	64	43	42	28	106	35
Jogging / walking to school	118	79	96	64	214	71
Physically active play and sports	88	59	66	44	154	51
Brushing twice	124	83	142	95	266	89

Source: Primary data

4.3 Health condition of children

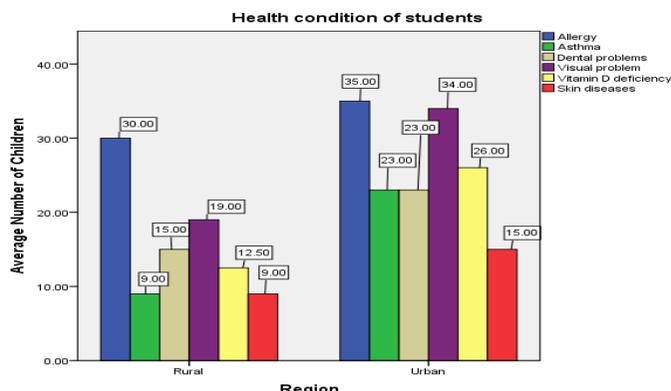
Health condition of children in rural and urban areas is also studied. Questions related to major possible diseases are included in the questionnaire. Response to questions like skin diseases, allergy and dental problems have very clear response from the children. They have already checked these diseases. However, only 168 students gave answer to enquiry to asthma, and only 48 responded to Vitamin D deficiency. Among those who responded or having checked the cases, 33 percent student have some kind of allergy, 16.6 % students have asthma, 19.2 % have dental problems, 22.6 % have visual problems, 27 % have vitamin D deficiency and 12 % have skin diseases. It can be seen that asthma, visual problems and vitamin D deficiency cases are very high among urban students compared to rural students.

Table 3
Health condition of students

Disease/ Health issues	Rural (150 children)*		Urban (150 children)		Total (300 children)	
	Diseased Number	%	Diseased Number	%	Diseased Number	%
Allergy	37 (120)	30	48 (138)	35	85(258)	33
Asthma	7 (78)	9	21(90)	23	28(168)	16.6
Dental problems	18 (120)	15	32(140)	23	50(260)	19.2
Visual problem	21 (112)	19	32(122)	34	53(234)	22.6
Vitamin D deficiency	2 (16)	12.5	11(32)	26	13(48)	27
Skin diseases	13 (150)	9	23(150)	15	36(300)	12

Source: Primary data *Figures in bracket denote number of responded students

Figure 2



¹ Merriam Webster dictionary of English

4.4 Food habits and its impact on BMI

Food habit has influence on BMI. For checking this various food habits of children have considered in the study. The results of the analysis are summarized in table 4. Frequency of consumption is classified into 2 categories like daily and frequently in one category and occasionally in second category. The possibility of having BMI above 25 is calculated in each of the food habit situations.

Table 4

Food habits and its impact on BMI

Food habits	Frequency of consumption	BMI Below 25	BMI Above 25	Ratio
Eating out habit	Daily/Frequently	17	32	1.88
	Occasionally	83	19	0.23
Skipping or irregular food	Daily/Frequently	60	29	0.48
	Occasionally	76	26	0.34
Consumption of soft drinks	Daily/Frequently	54	32	0.59
	Occasionally	120	21	0.18
Bakery items	Daily/Frequently	91	48	0.53
	Occasionally	73	23	0.32
Chicken/meat	Daily/Frequently	62	40	0.65
	Occasionally	98	32	0.33
Sweets or chocolates	Daily/Frequently	67	38	0.57
	Occasionally	107	28	0.26
Egg consumption	Daily/Frequently	67	32	0.48
	Occasionally	87	24	0.28

Source: Primary data

The ratio of BMI above 25 compared to BMI below 25 is calculated. This is to show how much possibility is there to have more BMI in case of various food consumption frequencies. In case of Eating out habit, those who consume daily/frequently are having very high possibility for having BMI above 25. BMI above 25 indicates situation of overweight or obese. The ratio is 1.88. But students who are occasionally eating out have very less chance for BMI above 25. Daily or frequent bakery item users, sweet users, soft drink users and egg users are having comparatively high possibility of high BMI.

5. Conclusion

The present study has been conducted to identify the impact of life style and food habits on child health. On the basis of 300 sample collected and analyzed, it could be understood that food habits and life style seriously affect the health of school children. Hence the study validates the hypothesis and concludes that life style and food habits influence the healthy life of children. Gender wise and region wise evaluation support this conclusion. Health issues are more common among urban children. Absence of manual works and exercise along with frequent eating out habits, junk food habits etc lead to high rate of BMI and health issues. Hence the study suggests giving more priority to child health in school curriculum. Frequent and free medical checkups can be conducted at schools by bringing lab to schools. Keeping medical record for each child and frequent monitoring of health status will be useful.

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