



FOOD CHOICES AND HEALTH PROFILE OF PRETEENS

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Abstract:

Food choices among children are too drastic and can be changed to healthy choices at the earlier ages. Dietary and food choices, lifestyle and behavioral pattern are important factors for the health and wellbeing of the preteens. Healthy and balanced diet plan with an active life style pattern plays a strong foundation and ensure the quality life of the Preteens. A total of 259 preteens in the age group of 11 and 12 studying in classes VI and VII were involved from both rural and urban schools for the health education. In order to create awareness among the study participants, interactive aids were used such as lecture, power point highlighting the importance of healthy food choices, importance of proper hygiene and sanitation and good life style practices. In addition to the health education to preteens, data on education to parents, teachers were also assessed with checklist for variations in Knowledge, Attitude and Practice and was statistically analysed as a part of health and food choices of preteens with parents and teachers.

Key Words: Food Choices, Life Style Disorders, Risk Assessment, Hygiene and Sanitation & Health Education

Introduction:

Food security at the individual, household, national, regional and global levels are achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. In most industrial countries such as USA and UK, the effects of increased income have generally been considered as beneficial, resulting in better quality diets, better healthcare, lower morbidity and mortality from infectious diseases and lower risk of diet related disorders¹. Dietary pattern is driven by certain factors which has a direct impact on the lifestyle of people leading to changes in choices of food. The food choice has a direct impact on nutritional health of the people as bad food choices can have adverse effects on overall health. A strategy is needed to overcome this anomaly of bad food choices and is the end solution² Food choices among children are too drastic and can be changed to healthy choices at the earlier ages. A healthy balanced diet for children provides essential vitamins, minerals and other nutritional goodies that kids need for healthy growth and development. Vitamins and minerals are vital for our bodies to function properly as each nutrient plays a specific role in the body³. Parents also play a direct role in children's eating patterns through their behaviors, attitudes, and feeding styles. Interventions aimed at improving children's nutrition need to address the variety of social and physical factors that influence children's eating patterns⁴.

Significance of the Research:

The transition from a traditional to modern life style, along with consumption of diet rich in fat and calories combined with a high level of mental stress has compounded the health problem. The way we eat, perform exercise, take rest, play, behave with others, think, plan, drive a vehicle, sleep carry out routine work and commitments and the total living style are all included in the term "life style"⁵. Hence this study aims at a holistic approach to make preteens become more independent in terms of nutrition, emotional health and body changes through effective strategies for preteens their parents and teachers thereby promote the health of the children and preserve as healthy and quality citizens of the future.

Objectives:

The objective focused for the current research was to

- ✓ To identify the variations in food choices and health profile of preteens in rural and urban area
- ✓ To relate the food choices and health profile in rural and urban preteens and
- ✓ To educate Preteens, Parents and Teachers on healthier food choices.

Methodology:

A. Selection of Area and Designing Tools for the Study: A total of two Higher Secondary Schools at Coimbatore each representing rural and urban areas at Coimbatore were identified for selection of study participants. The study participants comprised preteens in the age group between 9 and 12 years from Government higher secondary school at Vellamadai pancyayat for rural area and KG Matriculation school at Annur for urban area. A total of 259 study participants with 123 girls and 136 boys studying in classes six and seven were included for the study using purposive sampling. "A sampling design is called as purposive sampling, when the samples are drawn on the basis of personal judgment of a person". The inclusion criterion

for the selection of study participants were Preteens aged 11 and 12 years. Both boys and girls from class Six and Seven and those who were willing to contribute to the study. The exclusion criterion was children with any congenital diseases, children undergoing treatment if any and preteens aged 9 and 10 since the school authorities refused permissions

B. Formulation of Tools and Collection of Data: well designed questionnaire was used to assess the health profile of the study participants. A questionnaire is a data collection instrument consist of a series of questions and others that prompt for the purposes of gathering information from Assessment of health profile was done with anthropometric measurements, dietary pattern and lifestyle practices. The questionnaire comprised of personal, Health and nutrition profile. Anthropometric measurement comprises of Height, Weight and with the height and weight recorded, Body Mass Index was calculated. Dietary pattern of preteens with specific details on meal pattern, food intake and consumption of fast foods were elicited. The lifestyle pattern included physical activity such as aerobic exercises, meditation practices, hobby time and sleep pattern. Educational modules were designed for group counseling. Six health education sessions with 30 minutes each was conducted to impart education to all the study participants. The benefits aimed from the designed health education modules are to create awareness among the study participants, interactive aids were used such as lecture, power point highlighting the importance of healthy food choices, importance of proper hygiene and sanitation and good life style practices. In addition to the health education to preteens, data on education to parents, teachers were also assessed with checklist for variations in Knowledge, Attitude and Practice and were statistically analysed as a part of health and food choices of preteens with parents and teachers.

Findings of the Study:

Socio Economic Profile:

Socio economic profile comprising the type of family is discussed in Table I.

Table 1: Type of Family in Preteens

N= 259

Family Type	Rural (N= 117)				Urban (N=142)				Total	
	Girls	Boys	Total		Girls	Boys	Total			
	N= 58	N= 59	No	%	N= 65	N= 77	No	%	No	%
Joint Family	10	9	19	16.2	7	6	13	9.1	32	12.4
Nuclear Family	48	50	98	83.7	58	71	129	90.8	227	87.6

The details on family system adopted by the families of the preteens for the present study in the rural and urban areas indicated that 90.8 percent in urban and 83.7 percent in rural area had nuclear family system. It was also noted that the joint family system was higher in the rural families with 16.2 percent when compare to 9.1 percent at the urban area this indicates the nuclear family system predominates more in the urban and rural areas.

Health Assessment of the Prettens:

Health Assessment of the Preteens Comprised Anthropometric Measurements such as Body Mass Index, Dietary Pattern of the Preteens:

Anthropometric Measurements:

Anthropometric measurements like body mass index were discussed in Table II.

Table 2: Body Mass Index of the Preteens

N= 259

Categories	Rural (N= 117)						Urban (N=142)						Total	
	Girls		Boys		Total		Girls		Boys		Total			
	N= 58	%	N= 59	%	N= 117	%	N= 65	%	N= 77	%	N= 142	%	N= 259	%
Under weight	42	72	38	64.4	80	68.3	34	52.3	26	33.7	60	42.2	140	54.05
Normal weight	12	20.6	16	27.1	28	23.9	22	33.8	30	38.9	52	36.6	80	30.8
Over weight/ obese	4	6.8	5	8.4	9	7.6	9	13.8	21	27.2	30	21.1	59	15.05
Chi ² Value	83.267** (P= 0.015)						63.45** (p = 0.014)							

** - Significant at 1 % level

The Body Mass Index of the preteens when compared with the standard percentails chart, preteens in the underweight category were higher in rural areas with 68.3 percent and 42.2 percent in urban areas. The

percentages of girls in the underweight category were higher than boys. Also it was alarming to note that 7.6 percent preteens in rural area and 21.1 percent in the urban area were overweight, indicating dual burden of diseases being underweight and on the other hand being overweight. In accordance to the Center for Disease Control and prevention (CDC) National Center for Health Statistics (2013). When the data was analysed statistically with chi square test, the Body Mass Index had a significant relationship among rural and urban preteens cautioning the need for interventions at younger age groups

Dietary Pattern of the Preteens:

Dietary Pattern of the preteens is discussed in the following headings

Table 3: Dietary Pattern of the Preteens

N= 259

Dietary Pattern	Rural (N= 117)						Urban (N=142)						Total	
	Girls		Boys		Total		Girls		Boys		Total			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Vegetarian	12	20.6	10	16.9	22	18.8	7	10.7	3	3.8	10	7.04	32	12.4
Non- Vegetarian	42	72.4	47	79.6	89	76	55	84.6	69	89.6	124	87.3	213	82.2
Ova Vegetarian	4	6.8	2	3.3	6	5.1	3	4.6	5	6.4	8	5.6	14	5.4
Chi Square Value	110.492** (P = 0.001)						123.285** (P = 0.001)							

** - Significant at 1 % level

Non-vegetarianism predominated both among rural and urban preteens and was seen among 82.2 percent preteens. Vegetarians were only 16.9 and seven percent both rural and urban preteens. When the data were statistically analysed with chi square, the results showed significance at one percent level revealing the transition of food intake among both rural and urban preteens.

Table 4: Types of Foods Preferred by the Preteens

N= 259

Type of food	Rural (N=117)						Urban (N=142)						Total	
	Girls		Boys		Total		Girls		Boys		Total			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Natural Foods	4	6.8	6	10.2	10	8.5	9	13.8	7	9.1	16	11.2	26	10.03
Processed Foods	5	8.6	2	3.4	7	5.9	6	9.2	5	6.5	11	7.7	18	6.9
Fried Foods	33	56.8	34	57.6	67	57.2	27	41.5	29	37.6	56	39.4	123	47.5
Spicy Foods	16	27.5	25	42.4	41	35.04	31	47.6	32	41.5	63	44.4	104	40.1
Junk Foods	12	20.6	6	10.2	18	15.4	22	33.8	28	36.4	50	35.2	68	26.2

* Multiple Response

The consumption of processed foods such as canned foods and packed foods was most preferred by preteens among 6.9 percent and 47.5 percent of both rural and urban preteens. Consumption of fried foods consumed fried foods such as vadai, bonda, chips was higher with 56 percent in rural and 47 percent in urban area. The junk food consumption was high with 35.2 percent among urban preteen. High consumption of snacks, fatty foods, salty foods and sugar found to increase the development of life style disorders later in life

Impact of Health Education to Preteens:

Table 5: Impact of Health Education among the Preteens

Mean scores	Rural (N= 117)				Urban (N=142)			
	Girls		Boys		Girls		Boys	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Knowledge Maximum scores: 9	6	18	12	18	15	18	15	21
Attitude Scores Maximum scores: 9	9	15	9	15	12	19	14	18
Practice Scores Maximum scores: 9	6	18	9	12	12	20	12	18
F value	18.783** (P = 0.001)				17.18** (p = 0.001)			

** - Significant at 1% level (p < 0.01)

The health education to the Preteens was a welcomed section by all the Preteens and all the preteens showed a keen interest in understanding the concepts on nutrition, healthier food choices, importance of breakfast, regular meal, sleep pattern and adequate physical activities such as cycling, walking and games. There was a significant gain in Knowledge, Attitude and Practice scores revealing that awareness and education at this younger age will be beneficial for behavioural modifications. The post education scores were higher among urban preteens and showed a higher knowledge scores among boys and practice scores among girls evincing the fact that the girls were ready to put in practice whatever knowledge they have gained. Among the rural Preteens,

it was observed that girls perceived the health concepts better than boys. The data when interpreted statistically with ANOVA showed a significant improvement at one percent level indicating the benefits of the health awareness programmes among both underweight and overweight preteens.

Table 6: Impact of Health Education among the Parents and Teachers

Mean Scores	Parents				Teachers			
	Rural		Urban		Rural		Urban	
	Before	After	Before	After	Before	After	Before	After
Knowledge Max scores: 9	3	6	6	9	3	9	3	6
Attitude Max scores: 9	3	6	3	6	6	9	6	8
Practice Max scores: 9	3	9	3	9	3	9	6	9
F value	0.362 ^{ns} (P = 0.638)				3.678 * (p = 0.025)			

* - Significant at 5 % level

NS- Not Significant

The care takers of the Preteens being the parents and teachers also showed a keen interest in knowing the health facts and aspired to understand the ways in which modifications can be done in the meals of the children at home and school. There was an acceptable increase in Knowledge, Attitude and Practice among the parents and teachers. The statistical interpretation of data for Knowledge, Attitudes and Practice among the parents and teachers showed that there was significance variations among teachers as children at this age group always admire teachers as their role model enlightening the unique role of teachers beyond academics. This indicated a significant role of parents and had the mean scores increased after education but did not show a statistical significance which may be attributed to the reason of too short duration of health education programmes to the parents especially the parents from the rural areas.

Implications:

Healthy food choices evoked at earlier ages will have a strong foundation for quality Health and Wellbeing. Imparting Knowledge, instilling Attitude and Practice of behavioural modifications in diet and lifestyle practices among the preteens with a holistic approach of bringing the preteens with the parents and teachers would build confidence for the healthy growth and mask away the sedentary lifestyle, the gadget way. Continuous monitoring and practice of simple health and lifestyle choices will certainly have a positive impact on the population groups especially the younger age groups. Healthy food choices and lifestyle pattern will have intelligent arena at the younger minds and will continue throughout their life for health promotion.

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