

Dietary Habits and Physical Activity of the Adolescent Girls in Selected Colleges, Puducherry.
Running Title: -Dietary Habits and Physical Activity

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Abstract:- Descriptive cross-sectional design was adopted to assess the eating habits of 130 Adolescent Girls aged 17-19 years studying in selected Arts & Science College, Puducherry. Simple random sampling technique used to select the sample based on the inclusion criteria. Results: Dietary habits of adolescent girls shows that 96.90% of them had poor dietary habit, 3.10 % had good dietary habits and no adolescents had very good dietary habits. Physical activity shows that 61.50% of the adolescent girls had poor physical activity level and 2.30% had good level of physical activity. Statistically significant association found between dietary habits and selected socio demographic variables such as diet pattern ($p=0.002$) and place of residence ($p=0.032$) at $p<0.05$. Association between physical activity and selected socio demographic variables found statistically significant association between Religion and Physical activity of the adolescent girls at $p<0.05$.

Key words: Adolescent girls, lifestyle, dietary habits, Physical activity

I. Introduction

Adolescents are the young people aged between 10 to 19 years comprised of 1.2 billion population Worldwide, this indicates that roughly one in every six persons is an adolescent. About 21% of Indian population is adolescents¹. Adolescents form a healthy group and the health status of an adolescent affects the health status during their adulthood. Many serious diseases in adulthood have their origin in adolescence period. Eating healthy is an important part of a healthy lifestyle. Eating habits play an important role in preventing noncommunicable diseases such as DM, CVD, cancer, Alzheimer's disease and hepatic steatosis among adolescent girls such as chronic.²

Physical activity in the form of aerobic exercise, playing outdoor games, gardening or doing any other household work is very important to keep anyone fit, healthy and active. The level of physical activity significantly declines from childhood to adolescence especially among girls. Research evidence shows that there is a strong correlation between Body Mass Index, Social support, Physical activity and eating habits among adolescents.³ Physical inactivity was found to cause obesity and overweight and in turn it increases the risk of heart disease, stroke, osteoarthritis and cancer in adulthood.⁴

II. Need for the Study

Adolescence is a crucial period where the healthy eating practices typically decrease especially among girls. Transition from school to college tends to put adolescent girls in health risk behavior. Worldwide evidence shows that, dietary quality declines from childhood to adolescence which puts them at increased risk of Obesity, Polycystic Ovarian Syndrome, Diabetes mellitus & cardiovascular diseases. Most common eating habits prevail among college students are skipping breakfast, consuming fast food, bakery items, cool drinks and beverages, sweets, eating at hotels and restaurants, mobile chatting, sedentary lifestyle, lack of physical activity paves the way for the lifestyle diseases. Studying about the physical activity of the adolescent girls is very important to know their physical activity status and to plan and implement awareness programme on healthy life style and motivate the adolescent girls to engage in various forms of physical activity. Physical inactivity is becoming a major health related issue among present generation adolescent girls.

Puducherry is a place with multicultural French lifestyle where it is important to investigate dietary habits and physical activity of the adolescent girls in order to build healthy generation. Therefore, the researcher undertakes the study with following objectives.

III. Objectives

1. To assess the dietary habits and physical activity of the Adolescent girls
2. To associate the dietary habit and physical activity with selected socio demographic variables among Adolescent girls

IV. Methodology

Descriptive cross-sectional design was adopted to assess the eating habits of 130 Adolescent Girls aged 17-19 years studying in selected Arts & Science College, Puducherry. Simple random sampling technique by using lottery method four courses were selected from available courses list in the colleges. Census method used to collect the data from the study participants.

3.1 Instruments and tools

Structured interview Questionnaire consist of following section used for the study

Section A: Demographic profile such as age, Education, dietary pattern, religion, monthly family income, type of family and place of residence.

Section B: Five-point rating scale on eating Habits consist of 18 items.

Section C: Rating scale on Physical activity consist of 18 items.

3.2 Data Collection Method:

Researcher explained the purpose of the study and obtained informed consent from Adolescent girls. Structured interview questionnaire was used to collect data on dietary habits and physical activity among the Adolescent girls. Researcher spent about 15-20 minutes to collect data from each study participant.

3.3 Ethical Considerations:

Permission obtained from Institutional Ethical committee, Directorate of Higher and Technical education Puducherry and Principal of selected Colleges. A written informed consent obtained from the study participants before data collection.

V. Results

Demographic characteristics shows that 72 (55.4%) were in the age group of 18 years, 46 (35.4%) of them were studying B.Sc., 119 (91.5%) of them were nonvegetarian, 124 (95.4%) of them were Hindus, 40 (30.8%) of the had Monthly family Income of Rs. 3000-5000, 110 (84.6%) belongs to nuclear family and 74 (56.9%) of them were live in Urban area. Dietary habits of adolescent girls shows that 96.90% of them had poor dietary habit, 3.10 % had good dietary habits and no adolescents had very good dietary habits. Physical activity shows that 61.50% of the adolescent girls had poor physical activity level and 2.30% had good level of physical activity. Statistically significant association found between dietary habits and selected socio demographic variables such as diet pattern ($p=0.002$) and place of residence ($p=0.032$) at $p<0.05$. Association between physical activity and selected socio demographic variables found statistically significant association between Religion and Physical activity of the adolescent girls at $p<0.05$.

V. Conclusion

Study concludes that eating habits of adolescent is not satisfactory. Majority of them had poor dietary habits and physical activity. Family and social support are needed to keep them physically active. Adolescent girls are need to be given counselling on importance of physical activity for healthy living at educational institutions and Adolescent friendly health clinic. Health promotion measures and creating awareness on healthy dietary habits and physical activity are prime important.

VI. Recommendation

1. Rural and urban comparison of lifestyle habits of adolescent girls can be done
2. Lifestyle habits and risk of lifestyle disease can be explored.

VII. Reference

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Table 1: Frequency and percentage distribution of Adolescent girls according to sociodemographic variables
 n= 130

Sl. No	Socio demographic variables	Frequency (f)	Percentage (%)
1.	Age in years		
	17	34	26.2
	18	72	55.4
2.	Education		
	B.Sc	46	35.4
	B.Com	40	30.8
3.	Dietary pattern		
	Vegetarian	8	6.2
4.	Religion		
	Hindu	124	95.4
	Christian	2	1.5
5.	Monthly family Income in Rupees		
	3000-5000	40	30.8
	5001-10000	38	29.2
	10001-15000	35	26.9
6.	Type of family		
	Joint	17	13.1
	Nuclear	110	84.6
7.	Place of residence		
	Urban	74	56.9
	Rural	56	43.1

Table: 2 Distribution of Adolescent Girls according to Dietary Habits
 n=130

Dietary Habits	Frequency (f)	Percentage (%)
Poor	126	96.90%
Good	4	3.10%

Table: 3 Distribution of Adolescent Girls according to Physical activity
 n=130

Physical activity	Frequency (f)	Percentage (%)
Poor	80	61.50%
Good	47	36.20%
Very good	3	2.30%

Table 4: Association between Dietary habits and socio demographic variables of Adolescent girls
 n=130

Sl. No	Demographic variables	Dietary habits				p value
		Poor (<=50%)		Good (51 -75%)		
		n	%	n	%	
1.	Age in years					0.295
	17 years	32	94.1	2	5.90	
	18 years	71	98.60	1	1.40	
2.	Education					0.171
	B.Sc	43	97.83	1	2.17	
	B.Com	40	100	0	0	
3.	Dietary Pattern					0.002**
	Vegetarian	8	72.70	3	27.30	
4.	Religion					0.174
	Hindu	121	97.60	3	2.40	
	Christian	2	100	0	0	
5.	Monthly family Income in Rupees					0.373
	3000-5000	39	97.50	1	2.50	
	5000-10000	38	100	0	0	
	10000-15000	33	94.30	2	5.70	
6.	Type of Family					0.169
	Joint	15	88.20	2	11.80	
	Nuclear	108	98.20	2	1.80	
7.	Place of Residence					0.032*
	Urban	74	100	0	0	
	Rural	32	92.90	4	12.10	

* Significant at p<0.05

Table 5: Association between Habit of Physical activity and socio demographic variables of Adolescent girls
 n=130

Sl. No	Demographic variables	Physical activity						p value
		Poor ($\leq 50\%$)		Good (51 -75%)		Very Poor (>75)		
		n	%	n	%	n	%	
1.	Age in years						0.132	
	17 years	16	47.1	17	50.00	1		2.90
	18 Years	45	62.50	25	34.70	2		2.80
	19 Years	19	79.20	5	20.80	0		0.00
2.	Education						0.861	
	B.Sc	27	58.7	17	36.9	2		4.4
	B.Com	39	97.5	1	2.5	0		0.00
	BCA	29	65.90	14	31.80	1		2.30
3.	Religion						0.019*	
	Hindu	79	63.70	43	34.70	2		1.60
	Christian	0	0.00	2	100.00	0		0.00
	Muslim	1	25.00	2	50.00	1		25.00
4.	Monthly family Income in Rupees						0.849	
	3000-5000	25	62.50	14	35.00	1		2.50
	5001-10000	25	65.80	12	31.60	1		2.60
	10001-15000	22	62.90	12	34.30	1		2.90
	>15000	8	47.10	9	52.90	0		0.00
5.	Type of Family						0.506	
	Joint	8	47.10	9	52.90	0		0.00
	Nuclear	70	63.60	37	33.60	3		2.70
	Extended	2	66.70	1	33.30	0		0.00
6.	Place of Residence						0.771	
	Urban	46	62.20	27	36.50	1		1.40
	Rural	34	60.70	20	35.70	2		3.60

*significant at $p < 0.05$