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## "Dietary Practices During Menstruation Among Unmarried Girls In Chandigarh"

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### ABSTRACT:

*This community based cross sectional study was conducted with the objectives of studying dietary behavior and misconceptions, during menstruation among unmarried girls in Chandigarh, during April 08 to March 09. Stratified Multistage Random Sampling Design with probability proportional to size (PPS) technique was used and 744 respondents were selected. House-to-house surveys was conducted to collect the desired information by personal interview method. Informed consent following Ethical Guidelines of World Medical Association Declaration of Helsinki was taken. Data analysis was done by using SPSS-16 Software. Results showed several dietary misconceptions regarding avoidance of fruits, milk, rice, sugar, green leafy vegetables etc. Milk with turmeric was the most common food item to be used in excess during menstruation reported by 119 (15.9%) respondents. Non-vegetarian were never used by (38.3%) respondents while about (50%) respondents consumed eggs almost daily. The study concludes that unmarried girls in Chandigarh have a number of dietary misconceptions, which in turn may have several long terms consequences on their reproductive lives. There is an urgent need of imparting health education not only to girls but to mothers too. Dietary suggestions during menstruation in the form of eating plenty of whole grains, fresh fruits and vegetables, and avoiding saturated fats and commercial junk foods are helpful.*

### INTRODUCTION:

Girls constitute a more vulnerable group among adolescents particularly in developing countries<sup>1</sup>. For girls, it is a turbulent period, which includes stressful events like menarche, considered as a land mark of female puberty<sup>2</sup>. From both social and medical perspectives it is often considered the central event of female puberty, as it signals the possibility of fertility.

Although menstruation is a natural process, it is linked with several misconceptions, ignorance and practices among

young girls, which sometimes results into adverse reproductive health outcomes<sup>3</sup>. Menstruation disorders are also responsible for emotional, physical, behavioural and dietary practice changes<sup>4</sup>. These changes affect their normal functioning and social life.

Present study was conducted to study dietary and other practices during menstruation and to suggest a health educational package for healthy dietary and hygiene practices during menstruation for better reproductive health.

Despite the fact that menstruation is closely associated with reproductive health matter of females, community based research among unmarried girls on this particular topic has been relatively unexplored.

**MATERIALS AND METHODS:**

A community based cross-sectional study was conducted in Rural, Urban and Slum strata of UT Chandigarh during April 08 to March 09 using Stratified Multistage Random Sampling Design with probability proportional to size (PPS) technique and 744 respondents were selected from different strata. Only those unmarried girls who have already attained menarche were included.

Optimum sample size was calculated on the basis of a pilot survey using the formula: -

$$N_{(optimum)} = (1.96)^2 P (1-P)/L^2$$

Where

P = Prevalence of adolescent girls having some menstrual health problem.

L = Permissible error in estimation

**TABLE – 1: RESPONDENTS BY DIETARY PRACTICES DURING MENSTRUATION**

Food Item	Dietary Practice	
	Avoid/Consume less (N=744)	Excessive use (N=744)
Milk	75 (10.1)	117 (15.7)
Fruits	74 (9.9)	11 (1.5)
Light meals	-	48 (6.4)
Milk with turmeric	-	119 (15.9)
Milk with jaggery	-	102 (13.7)
Dry fruit	112 (15.0)	-
Green vegetable	72 (9.7)	81 (10.9)

A well-trained team of female investigators of the department were involved in House-to-house surveys to collect the desired information by personal interview method.

Informed consent following Ethical Guidelines of World Medical Association Declaration of Helsinki<sup>5</sup> was taken.

**STATISTICAL METHODOLOGY:**

Statistical techniques like Means and Standard Deviations and Chi square were used to analyze data. Data analysis was done by using SPSS-16 Software.

**RESULTS:**

Table-1 shows food habits of respondents during days of menstruation. Pickles / other sour food items, and spicy foods were either avoided or were consumed less by 151 (20.3%) and 147 (19.7%) respondents respectively. Milk with turmeric was the most common food item to be used in excess during menstruation reported by 119 (15.9%) respondents.

Milk with ajwain	-	78 (10.5)
Spicy food	147 (19.8)	-
Sour items	151 (20.3)	-
Cold drink	57 (7.7)	-
Non vegetarian food	91 (12.2)	-
Rice	67 (9.0)	-
Sugar / jaggery	126 (16.9)	-

Dietary pattern of respondents enquired through food frequency is presented in table-2. Green leafy vegetables were being used daily by (80.8%) respondents while roots and tubers were reported to be used daily (70.1%) respondents. Consumption of milk and milk products was also found to be in about (86%) respondents. Non-vegetarian were never used by (38.3%) respondents while about (50%) respondents consumed eggs almost daily.

**TABLE – 2 DIETARY PATTERN/ OF RESPONDENTS (FOOD FREQUENCY) (N=257)**

Food Item/Food Frequency	Percentage Distribution
<b>(a) Cereals</b>	
Daily	78.3
once a week	15.0
more than once per week	5.8
Occasional	.8
<b>(b) Pulses</b>	
Daily	76.5
once a week	10.5
more than once per week	9.7
Occasional	3.4
<b>(c) GLV</b>	
Daily	80.8
once a week	10.7
more than once per week	5.8

Occasional	2.7
<b>( d ) Other Vegetables</b>	
Daily	72.4
once a week	21.3
more than once per week	4.1
Occasional	2.3
<b>(f) Roots and Tubers</b>	
Daily	71.0
once a week	22.5
more than once per week	2.0
Occasional	4.5
<b>( g) Milk and Milk Products</b>	
Daily	85.8
once a week	10.9
more than once per week	1.7
Occasional	1.7
<b>(h) Oil and Fats</b>	
Daily	78.1
once a week	17.7
more than once per week	2.3
Occasional	1.9
<b>( i) Sugar and Jaggery</b>	
Daily	79.0
once a week	13.4
more than once per week	7.3
Occasional	0.4
<b>(k) Egg</b>	
Never	32.9

Daily	50.4
once a week	11.7
more than once per week	2.1
Occasional	2.9
<b>(l) Meat Products</b>	
Never	38.3
Daily	46.7
once a week	10.0
more than once per week	2.5
Occasional	2.5
<b>(m) Fish</b>	
Never	34.2
Daily	51.3
once a week	12.1
more than once per week	1.3
Occasional	1.3

## DISCUSSION:

Some restrictions like consuming some food items in excess, worship/religious activities were followed at their own will without imposing such restrictions by their parents. These findings show that imposing unnecessarily the rigid and undesired restrictions on respondents cannot bring fruitful results as respondents are quite aware what they should do and they do not like some restrictions during those days.

Several dietary misconceptions like avoidance of some specific food items & excessive use of some specific food items during menstrual are also reported in the present study. Pickles / other sour food items, and spicy foods were either avoided or were consumed less by 151 (20.3%) and 147 (19.8%) respondents respectively. There were several dietary misconceptions regarding

consumption of non-vegetarian food & fruits, avoidance of milk, rice, sugar, green leafy vegetables etc. Hot food and non-vegetarian food avoidance during menstruation as a common belief is also reported earlier<sup>6</sup>.

Milk was consumed more during menstruation by 28.5% girls<sup>7</sup> while spicy food and sour food items were avoided by 28.5% and 50.0% girls<sup>7</sup>, in another study by Pragya Pandey<sup>7</sup>. Green leafy vegetables were also avoided by 9.5% girls<sup>7</sup>. Tea with ginger and tulsi was being used as a home remedy by 55.8% girls while milk with ajwain, milk with turmeric, milk with ginger and jaggeri were being used as home remedies for menstrual problems by 20.5% each<sup>7</sup>.

## CONCLUSIONS AND SUGGESTIONS:

The study concludes that unmarried girls in Chandigarh have a number of dietary misconceptions and are facing undesired restriction during menstruation. Their knowledge in terms of several aspects of menstruation is poor. This in turn may have several long term consequences on their reproductive lives. There is an urgent need of imparting health education not only to girls but to mothers too. By providing mothers with good information, they will be able to communicate with their daughters to sort out mis-information regarding menstrual issues. Girls should be encouraged to eat nutritious food during menstruation to prevent any deficiency.

### DIETARY SUGGESTIONS DURING MENSTRUATION:

The general guidelines for a healthy diet apply to everyone; they include eating plenty of whole grains, fresh fruits and vegetables, and avoiding saturated fats and commercial junk foods. Making dietary adjustments starting about 14 days before a period may help some women with certain mild menstrual disorders, such as cramps.

**Low-Fat, Low-Meat Diets:** Avoiding red meats and dairy products during the premenstrual period may be beneficial.

**Salt Restriction:** Limiting salt may help bloating.

**Reducing Coffee, Sugar, and Alcohol:** Reducing caffeine, sugar, and alcohol intake may be beneficial.

**Vitamins:** Relief from menstrual pain using vitamin B1 (thiamin). Thiamin is found in almost all foods, but the best source is pork. Other good sources of thiamin are dried fortified cereals, oatmeal, and sunflower seeds.

#### Simple Tips for Menstruation:

- Avoid foods that may cause constipation, especially in the last week of the menstrual cycle. This includes fried foods, sour foods and protein-rich pulses.
- Fish is a good dietary indication for painful periods. Fish contain omega-3 fatty acids which help to ease the spasms during menstruation.
- Avoid meat, poultry and dairy products.
- Healthy food habit, exercise and specific

yogic exercises help in solving menstrual problems.

- Iron rich food is also important for women suffering from anemia.
- Vegetables such as white pumpkin, papaya, drumstick, snake gourd, bitter gourd and cucumber are good for dysmenorrhea.
- Potato, yellow pumpkin and eggplant must be avoided

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