



RESEARCH ARTICLE

A STUDY ON MISCONCEPTIONS OF FOOD INTAKE DURING PREGNENCY & LACTATION

¹Dr. Krishnamma, B.S., ^{2,*}Dr. Suryaprabha, V. and ³Mrs. Surya Deepti

¹Professor and Head of the Department of Ob & G,

²Asst. Professor Department of Ob& G,

³M.Sc Nutrition Dietician

ARTICLE INFO

Article History:

Received 20th May, 2017
Received in revised form
09th June, 2017
Accepted 23rd July, 2017
Published online 31st August, 2017

Key words:

Particular animal,
Including mammals,
Rodents, reptiles,
Amphibians, bony fish
and Crustaceans.

ABSTRACT

In (11-bold) Taboos and misconceptions during pregnancy have been part of Indian cultures since centuries. Superstition is a belief or practice generally regarded as irrational and as resulting from ignorance or from fear of the unknown. It implies a belief in unseen and unknown forces that can be influenced by objects and rituals. Magic or sorcery, witchcraft, and the occult in general are often referred to as superstitions. Food Taboos and Misconceptions among Pregnant Women are most common in many women of any part of the country (Ref 1). A food taboo is a prohibition against consuming certain foods. The word "taboo" (also spelled "tabu") is Polynesian and means 'sacred' or 'forbidden'; it has a quasi-magical or religious overtone. The term was introduced in the anthropological literature in the second half of the nineteenth century. Taboo food and drink are which people abstain from consuming for religious, cultural or hygienic reasons. Many food taboos forbid the meat of a particular animal, including mammals, rodents, reptiles, amphibians, bony fish, and crustaceans. All communities have their own cultural (traditional) pattern. The cultural pattern of a group is based on learned behavior, acquired partly by deliberate instruction on the part of parents, but mostly subconsciously by incidental observation of the behavior of relatives and other close members of the community.

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Citation: Dr. Krishnamma, B.S., Dr.Suryaprabha, V. and Mrs. Surya Deepti. 2017. "A study on misconceptions of food intake during pregnancy & lactation", *International Journal of Current Research*, 9, (07), 56510-56514.

INTRODUCTION

A COMPARATIVE study was conducted on pregnant mothers of rural & urban residents 'at SANGIVALASA, VISAKHAPATNAM DISTRICT ANDHRA PRADESH. Study was conducted from Jan2014—Dec2014 ,selecting Rural women from ANIMS,NRI Medical college, Sangivalasa, Visakhapatnam, A.P. and Urban women from Apoorva hospital, Visakhapatnam, A.P.

The following criteria were fixed and results tabulated.

Demographic Profile

Age, Literacy status & Socio Economic Status of the participants.

Diet Profile:

- Diet Pattern of Mothers,
- Intake of Meals per day,
- Description of Special Craving for PICA & Diet change pattern,

- Decision of diet influenced by with multiple options
- Milk & water consumption styles,
- Foods avoided by the pregnant mothers,
- Reasons for avoiding the foods,
- Profile -Commercial Supplements a) Recommended FFc /Ca B) Frequency of use, C) Regular Physical Activity.
- Awareness about Nutrition Requirements.

RESULTS

Demographic Profile

- 50.67 % of urban mothers, followed by
- 46.67 % mothers from rural area have participated in the study. The urban mother's experiences pregnancy in 25-29 years, where in case of comparable rural group it was 20 -24 years of age.
- Among the rural group 36 % of mothers are illiterate and no illiterate found in urban area.
- Among the urban mothers 71 % of belong to upper middle class ,where as in case of rural mothers 55 % of mothers belong to lower class.

*Corresponding author: Dr. Suryaprabha, V.
Asst. Professor Department of Ob& G.

- Among rural mothers non vegetarian mothers are 84 %, followed by 61.33 % in case of urban area.

Table No 1 Age group distribution in Pregnant & Lactating mothers (n₁ =75 ,n₂ =75)

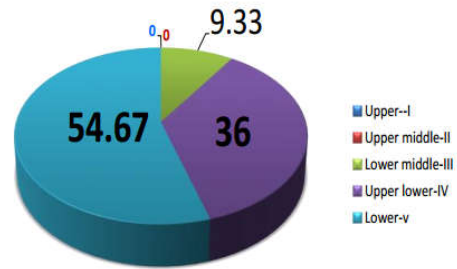
Age group in yrs	Rural No (%)	Urban No (%)	Overall No (%)
15-19	15 (20.00)	01 (1.33)	16 (10.67)
20-24	35 (46.67)	17 (22.67)	52 (34.67)
25-29	19 (25.33)	38 (50.67)	57 (38.00)
30-34	06 (8.00)	19 (25.33)	25 (16.67)
Total	75 (100.0)	75 (100.0)	150 (100.0)

Parameters and test results:

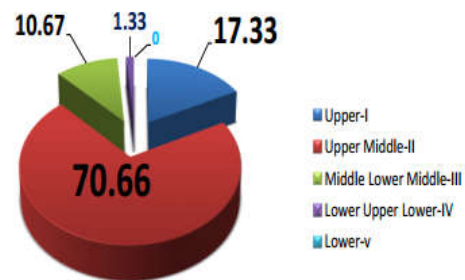
1. Mean	23.06	27
1. SD	4.25	3.64

Student t test results = t value =6.06 degrees of freedom = P < 0.001 Highly significant.

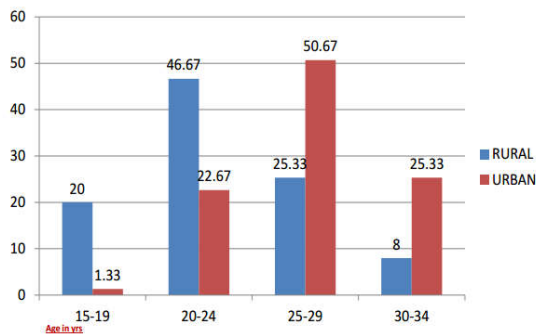
SOCIO ECONOMIC STATUS OF STUDY POPULATION IN Rural group%



SOCIO ECONOMIC STATUS OF STUDY POPULATION IN Urban group%



DISTRIBUTION OF STUDY POPULATION ACCORDING TO AGE GROUP IN %



DISTRIBUTION OF STUDY POPULATION ACCORDING TO EDUCATIONAL STATUS IN %

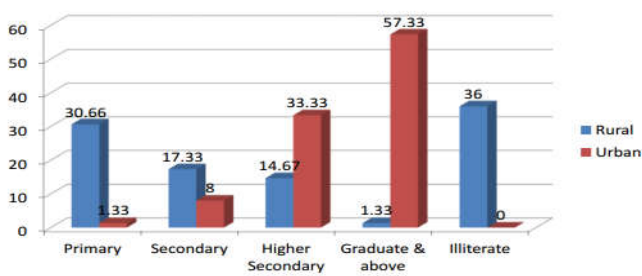


Table No. 3 Socio Economic Status of the participants in the study : n₁ =75 ,n₂ =75

Dr.Kuppuswamy Socio Economic Class	Rural No (%)	Urban No (%)	Overall No (%)
1. Upper -I	00	13 (17.33)	13 (8.67)
1. Upper Middle -II	00	53 (70.67)	53 (35.33)
1. Lower Middle -III	07 (9.33)	08 (10.67)	15 (10.00)
1. Upper Lower-IV	27 (36.00)	01 (1.33)	28 (18.67)
1. Lower - V	41 (54.67)	00	41 (27.33)
Total	75 (100.0)	75 (100.0)	150 (100.0)

X² test value = 131.20, 4 degrees of freedom, P < 0.0001 Highly significant.

Table No 2 Literacy status of Participants : (n = 75, n₂ = 75)

Literacy Category	Rural No (%)	Urban No (%)	Overall No (%)
1. Primary	23 (30.67)	01 (1.33)	24 (16.00)
1. Secondary	13 (17.33)	06 (8.00)	19 (12.67)
1. Higher secondary	11 (14.67)	25 (33.33)	36 (24.00)
1. Graduation & above	01 (1.33)	43 (57.33)	44 (29.33)
1. Illiterate	27 (36.00)	00 (0.00)	27 (18.00)
Total	75 (100.0)	75 (100.0)	150 (100.0)

Test results X² value = 95.26, degrees of freedom = 4 P < 0.001 Highly Significant.

Diet Profile

Table No. 4 Diet Pattern of Mothers : (n₁ = 75 ,n₂ =75)

Type of Diet	Rural No (%)	Urban No (%)	Overall No (%)
Vegetarians	06 (8.00)	25 (33.33)	31 (20.67)
Non - vegetarians	63 (84.00)	46 (61.33)	109 (72.67)
Ove-tarins	06 (8.00)	04 (5.33)	10 (6.67)
Lacto vegetarians	00 (0.00)	00 (0.00)	00
Total	75 (100.0)	75(100.0)	150 (100.0)

X² test value =14.68, degrees of freedom = 2 P < 0.001. Highly significant.

- Vegetarianism found to be more in urban area than the rural area, the proportion of the same is 33.33 & 8% respectively.
- Meal consumption 3/per day is 61.33 % in rural mothers followed by 58.67 % in case of urban areas.

INTAKE OF MEALS / DAY OF STUDY POPULATION IN %

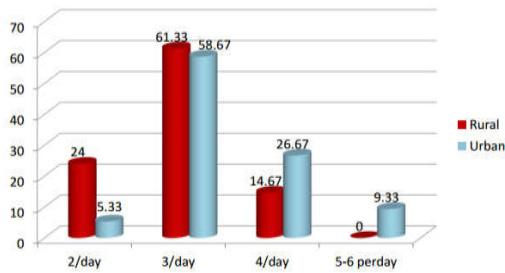


Table No. 5 Intake of Meals per day : (n1 = 75, n2 =75)

No. of Meals per a day	Rural No (%)	Urban No (%)	Overall No (%)
1. 2/ per day	18 (24.00)	04 (5.33)	22 (14.67)
1. 3/ per day	46 (61.33)	44 (58.67)	90 (60.00)
1. 4/ per day	11 (14.67)	20 (26.67)	31 (20.67)
1. 5-6 per day	00 (0.00)	07	07 (9.33)
Total	75 (100.0)	75 (100.0)	150 (100.0)

X² test value = 18.55 , degrees of freedom is = 3 P < 0.001 Highly significant

DISTRIBUTION OF SPECIAL CARVING PICA & CHANGE OF DIET PATTERN IN %

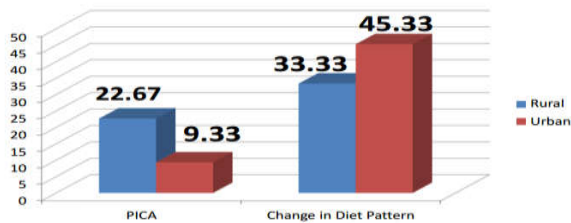


Table No.6 Description of Craving PICA & Diet change pattern: (n₁ = 75 ,n₂ =75)

Areas	PICA Yes	Diet change Yes
Rural	17 (22.67)	25 (33.33)
Urban	07 (9.33)	34 (45.33)
Overall	24 (16.00)	59 (39.33)
Test Results	X ² value = 4.96 P < 0.05	X ² value = 2.25 P > 0.05

DIET OF PREGNANT MOTHERS INFLUENCED

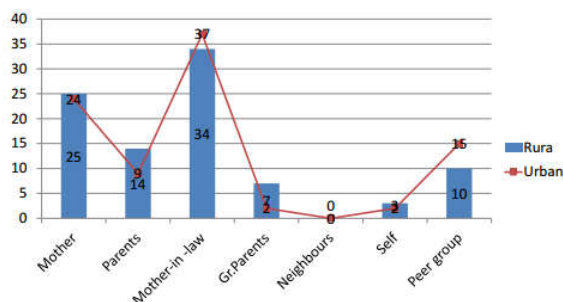
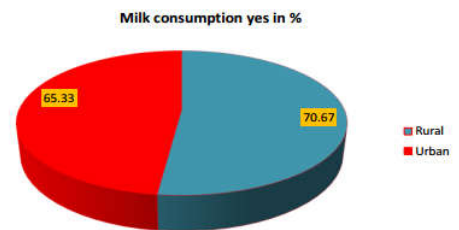


Table No.7 Decision of diet influenced by with multiple options (Rural – 95, Urban – 93)

Influenced by	Rural (%)	Urban (%)	Total
1. Mother	25 (26.31)	24 (25.80)	49
1. Parents	14 (14.74)	09 (9.68)	23
1. Mother - in - law	34 (35.79)	37 (39.78)	71
1. Gr.Parents	07 (7.37)	02 (2.15)	09
1. Neighbors	00	00	00
1. Self	03 (3.16)	04 (4.30)	07
1. Peer Groups	02 (2.10)	02 (2.15)	04
1. Combinations	10 (10.53)	15 (16.13)	25
Total	95 (100.0)	93 (100.0)	188

•Diet of pregnant mothers is influenced by mother-in-law is 39.78 % in urban area followed by 35.79 % in rural area.
 •Mother’s influence is 26 % in both the groups

DAILY MILK CONSUMPTION IN RURAL & URBAN WOMEN IN %



			X ² value	d.f.	P value	
Rural	53 (70.67)		0.49	1	P > 0.05	
Urban	49 (65.33)					
1. Daily consumption milk in no. of glasses figures in percent (%)						
	One glass	Two glasses	Three & above	X ² value	d.f.	P value
Rural	48.00	22.67	00	25.52	2	P < 0.001
Urban	32.00	36.00	32.00			

•Daily intake of milk one glass is 70.67 % in rural group ,two glasses of milk intake in36 % urban group are.
 •It is significant at P < 0.001 level of significance.

Table No .8 Milk & water consumption styles (N₁=75,N₂=75)

Category	1. Water consumption in a day in number of glasses figures in percent (%)				X ² value	d.f.	P value
	2-4	4-6	6-8	8-12			
Rural	0	37.33	61.33	14.67	22.3	3	P < 0.001
Urban	5.33	58.67	26.67	9.33			

•Drinking water consumption 4-6 glasses in urban group is 58.67 % and in rural mother’s is 6-8 glasses of water per day 61.33%.
 •The test value is found to be significant P< 0.001

			X ² value	d.f.	P value
Rural	72 (96.00)		0.15	1	P > 0.05
Urban	71(94.67)				

Food restriction is almost same in both the groups it was 96 % in rural group and 94 % in case of urban area.
 P> 0.05 is not significant.

• Diet of pregnant mothers is influenced by mother-in-law is 39.78 % in urban area followed by 35.79 % in rural area.

FRUITS AVOIDED BY PREGNANT MOTHERS IN % MULTIPLE ANSWERS (n₁=75, n₂=75) (Ref-2)

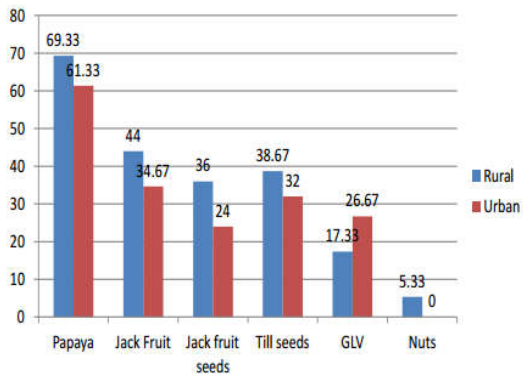


Table No 9 Showing Foods avoided by the pregnant mothers: (n₁=75, n₂=75)

Fruits	Rural	Urban	Foods	Rural	Urban
Papaya	52 (69.33)	46 (61.33)	1. Fish	06 (08.00)	29 (38.67)
Jack fruit	33 (44.00)	26 (34.67)	1. Prawns	12 (19.00)	30 (40.00)
Jack fruit seeds	27 (36.00)	18 (24.00)	1. Crabs	11 (14.67)	30 (40.00)
Til seeds	29 (38.67)	24 (32.00)	1. Nuts	04 (5.33)	00 (0.00)
GLV(Green leafy vegetable)	13 (17.33)	20 (26.67)	1. Cool Foods	21 (28.00)	20 (26.67)
Milk	22 (29.33)	24 (32.00)	1. Chicken	08 (10.67)	29 (38.67)
Egg	12 (16.00)	19 (25.33)	1. Meat	08 (10.67)	29 (38.67)
Oil	00 (0.00)	00 (0.00)	1. Ghee	37 (49.33)	34 (45.33)

FOODS AVOIDED BY PREGNANT MOTHERS IN % MULTIPLE ANSWERS (n₁=75, n₂=75)

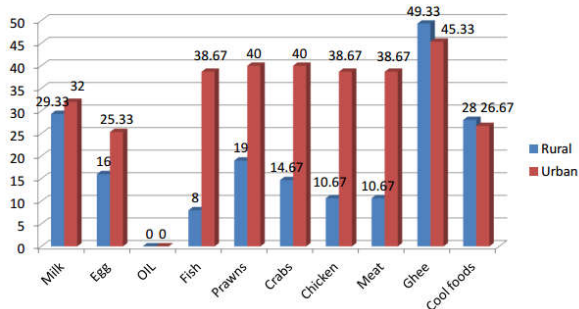
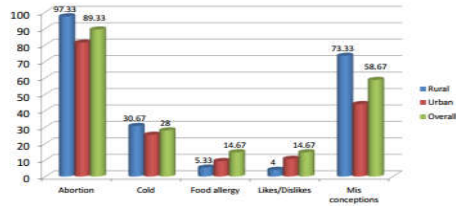


Table No. 10 Reason for avoiding the foods multiple answers

Table No 10 Showing Reasons for avoiding the foods: (n₁=75, n₂=75)

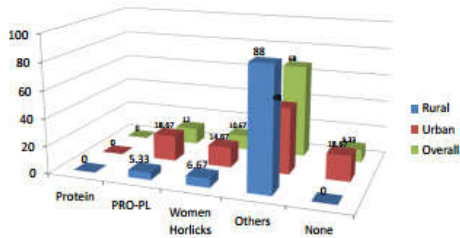
Reasons	Rural	Urban	Overall
Abortion	73 (97.33)	61 (81.33)	134 (89.33)
Cold	23 (30.67)	19 (25.33)	42 (28.00)
Food allergy	04 (5.33)	07 (9.33)	11 (14.67)
Likes/Dislikes	03 (4.00)	08 (10.67)	11 (14.67)
Misconception	55 (73.33)	33 (44.00)	88 (58.67)

REASONS FOR AVOIDING FRUITS & FOODS IN % MULTIPLE ANSWERS (n₁=75, n₂=75)

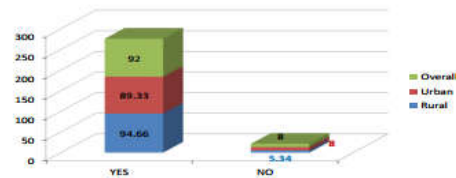


Supplement	Rural	Urban	Overall
1. Protein	00	00	00
1. PRO-PL	04 (5.33)	14 (18.67)	18 (12.00)
1. Women's Horlicks	05 (6.67)	11 (14.67)	16 (10.67)
1. None	00	14 (18.67)	14 (9.33)
1. Others	66 (88.00)	36 (48.00)	102 (68.00)
Total	75 (100.0)	75 (100.0)	150 (100.0)

INTAKE OF COMMERCIAL SUPPLEMENTS IN % (n₁=75, n₂=75)



RECOMMENDED IFA/Cal IN % (n₁=75, n₂=75)



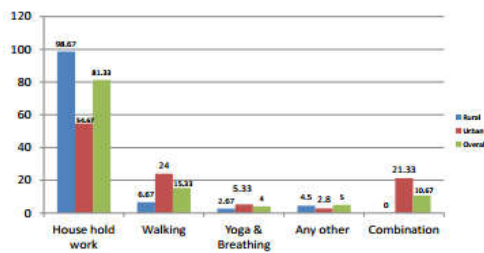
A) Recommended IFA/Ca			
	Rural	Urban	Overall
Yes	71 (94.66)	67 (89.33)	138 (92.00)
No	04 (5.34)	08 (8.00)	12 (8.00)

III) Profile -Commercial Supplements: (n₁=75, n₂=75)

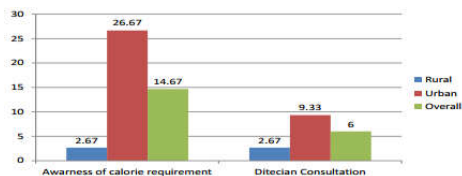
Supplement	Rural	Urban	Overall
1. Protein	00	00	00
1. PRO-PL	04 (5.33)	14 (18.67)	18 (12.00)
1. Women's Horlicks	05 (6.67)	11 (14.67)	16 (10.67)
1. None	00	14 (18.67)	14 (9.33)
1. Others	66 (88.00)	36 (48.00)	102 (68.00)
Total	75 (100.0)	75 (100.0)	150 (100.0)

	Rural	Urban	Overall
1. Regular	66 (88.00)	46 (61.33)	112 (74.67)
1. 3 times /wk	03 (4.00)	17 (22.67)	20 (13.33)
1. Irregular	03 (4.00)	04 (5.34)	07 (9.33)
1. Avoid	03 (4.00)	08 (10.67)	11 (7.33)
Total	75 (100.0)	75 (100.0)	150 (100.0)

REGULAR PHYSICAL ACTIVITY IN % (n₁ =75 ,n₂ =75)



AWARNESS OF CALORIE REQUIREMENT & DITECIAN COSULTATION YES IN % (n₁ =75 ,n₂ =75)



IV) Awareness about Nutrition Requirements: (n₁=75,n₂=75)

Awareness of caloric Requirement:					
Options	Rural	Urban	Overall	X ² value	P Value
Yes	02 (2.67)	20 (26.67)	22 (14.67)	17.27	P < 0.001
No	73 (97.33)	55 (73.33)	130 (86.67)		
A) Dietician consultation :					
Yes	02 (2.67)	07 (9.33)	09 (6.00)	2.92	P > 0.05
No	73 (97.33)	68 (90.67)	141 (94.00)		

A) Regular Physical Activity :			
Type of activity	Rural	Urban	Overall
1. Household work	68 (90.67)	41 (54.67)	122 (81.33)
1. Walking	05 (6.67)	18 (24.00)	23 (15.33)
1. Yoga & Breathing	02 (2.67)	04 (5.33)	06 (4.00)
1. Any other	00	12 (16.00)	12 (8.00)
1. Combination	00	16 (21.33)	16 (10.67)

- Drinking water consumption 4-6 glasses seen in urban group is 58.67 % and in comparable group of rural mother's is 6-8 glasses of water per day 61.33%.
- It is also observed that 16 % of rural group & 25.33 % of urban group are avoiding egg, but it may be due to vegetarianism.

- 10) Cool foods are avoided by 28 % of rural group and 26.67 % of urban group
- The highest food avoided is ghee i.e. 49.33 % and 45.33 % respectively.

Conclusions

The rural mothers experience pregnancy between 22-24yrs and urban mothers at 25-29yrs. There are no illiterates among urban group where as 36% illiterates in rural group.71% of urban mothers are upper middle class and 55% of rural mothers are lower class. 84% of rural mothers, 61.33% urban mothers are non-vegetarians. 33% of urban mothers and 8% of rural mothers are vegetarians. This proves that vegetarians is more I urban group mothers. Consumption of meals 3 times a day is 61.33% & 58.67% in rural & urban mothers respectively Diet of the pregnant mothers is influenced by mother in low is 39.78% & 35.79% in urban & rural respectively water consumption is more in rural mothers (6-8 glasses/day, i.e. 61.33%) and it is 4-6 glasses in urban mothers i.e. 58.67%. 16% of rural women & 25.33% of urban women are avoiding egg 28% of rural group & 26.67% of urban women avoid cool foods. Highest food avoided in ghee i.e. 49.35% & 45.33%. The same type of study was done by giving per tested questionnaire to correct the information (reference) to correct the information was done as a cross sectional study at rural area of khodu of surendra nagar by prof. & HOD of Community Medicine Dr. C. Ushan.s. The conclusion arrived from our study are similar to the other's study. (Ref-1) In both rural and urbon areas mother in law's influence is more on diet of pregnant woman.

REFERENCES

A study on taboos and misconceptions associated with pregnancy among rural women of Surendranagar district Ankita Parmar1, Hardika Khanpara1, Girija Kartha 2, 1P.G. Resident, 2Professor and Head Department of Community Medicine, C. U. Shah Medical College, Surendranagar.

Rural women in Nepal believe that mangoes, a hot food, are good to eat during pregnancy in moderate quantities, but overconsumption of mangoes can cause abortion (Christian et al. 2006)

Healthline, P ISSN 2239-337X/337X/eISSN 2320-1525 Volume 4 Issue 2 July-December 2013
