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A Comparative Study of Nutritional Awareness among Urban-Rural Pregnant Mothers.

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ABSTRACT

The aim of the study was to determine the existing practices, knowledge and attitude of mothers towards nutrition during pregnancy in urban and rural area. A cross-sectional study was conducted among pregnant women visiting Antenatal clinic at urban & rural field practice area from June to November 2012. Semi structured questionnaires were used to gather the socio-demographic data, knowledge, attitude & practices about nutrition during pregnancy. Data was analyzed using SPSS version 18.0. The nutritional knowledge and practices of urban mothers are high compared to rural mothers, while rural and urban mothers had almost equal positive attitude towards nutrition. It has been shown that 68% of urban respondents and 73% of rural respondents are avoiding some foods like papaya, coconut, and meat during pregnancy. The above findings can be used to plan a customized nutritional intervention programme aiming to improve the maternal nutritional knowledge and practices and eventually improve the health status of the pregnant mothers especially in rural areas.

INTRODUCTION

From nutritional point of view, the Indian society is a dual society, consisting of a small group of well fed and a very large group of undernourished. Due to male dominant society the food distribution within the family is an important issue. Women eat less and last of all in the family. The feeding practices for female children, adolescent girls are discriminatory which lead to poor nutritional status of young girls. Anaemia is the most common nutritional deficiency disorder in the world. Iron deficiency anaemia is the most wide spread micronutrient deficiency during pregnancy affects one billion people worldwide and the United Nations Children's Fund's (UNICEF) emphasizes this global problem and goal to reduce the prevalence of anaemia (including iron deficiency) to one third by 2010 [1]. Prevalence of anaemia in all the groups is higher in India as compared to other developing countries [2]. In India around 80 % of pregnant women are anaemic, 19% of maternal deaths are attributed to anaemia. The prevalence was highest in Bihar (87.6%) followed by Rajasthan (85.1%) and Karnataka (82.7%) [3]. According to NFHS-3, about 57.9% women are anaemic of which 54.6% are in urban areas and 59% in rural areas [4]. Almost universal deficiency of zinc in pregnant mothers in developing countries [5]. Nutritional problems during pregnancy impact not only on women's quality of life, but consequently on her newborn's well being after delivery, her family members and community as well. The nutritional status of the mother is the most important determinant of pregnancy outcomes, including the birth weight of the newborn [6]. Prevalence of Low Birth Weight babies in India ranged between 26% to 57% in the urban slums and 35% to 41% in rural areas.[7] Among all the social determinants of maternal mortality, status of women in the society plays important role. Women in poor household have reduced access to nutrition, rest, health education & health care – all

of which are essential for safe pregnancy. This study attempts to learn the factors associated with nutritional status of antenatal mothers and their awareness about care during pregnancy.

Objectives

To determine the existing practices, knowledge and attitude of mothers towards nutrition during pregnancy.

MATERIALS AND METHODS

A cross sectional study was conducted in pregnant women visiting Antenatal clinic at urban & rural field practice area of BMCH, chitradurga from June to November 2012. An approval to conduct the study was obtained from ethical committee. Simple Convenience Sampling technique was used. All antenatal mothers reported at UHC & RHTC during the study period who were willing to participate were interviewed after seeking verbal consent. Data was collected by using pre-designed, semi structured questionnaire. Data regarding socio-demographic characteristics like age, religion, education, occupation, marital status, SES by using BG Prasad classification, and obstetric history was collected. Knowledge questionnaire had 12 items, for each correct answer 1 score and for wrong answer 0 score was given. The knowledge score was divided into two levels which are good knowledge and poor knowledge by using mean knowledge score as cut off point. Attitude questionnaire had 9 items, for this 5 point Likert scale was used. All of these questionnaire were scored from 1-5 (1- strongly disagree, 2-disagree, 3- neither disagree nor agree, 4-agree, 5-strongly agree). The responses to the option for strongly agree and agree were reported cumulatively so as the response to strongly disagree and disagree. Regarding practises, it had 5 questionnaire and percentages were used for comparison.

RESULTS

Out of 200 respondents examined, majority of the respondents from both the groups were aged between 21-25 years. The minimum age reported was 15 years and maximum was 32 years. The education of most of the urban women were up to matriculate (60%), followed by graduate (37%) and very few were school dropouts (3%), where as in rural respondents most of them were educated up to matriculate (67%), followed by school drop outs (20%) and very few were graduates (13%).The difference in education level of both the groups are statistically significant. 73% of rural respondents were from joint families as compared to urban respondents (56%).

Regarding the socio economic status most of the rural mothers were from class-5 of BG Prasad classification whereas urban mothers were from class-4. 86% of rural women and 14% of urban women were not engaged in any occupational work (Table-1).The mean score for knowledge regarding nutrition in pregnancy for rural mothers was 7.18 (SD 3.14) and for urban mothers was 8.85 (SD2.79). Statistically significant difference was found in urban and rural respondents (t value 3.98, P value <0.002). Table 2 shows rural mothers (50%) had poor knowledge regarding nutrition compared to urban mothers (67%) and the difference was statistically significant ($\chi^2 = 5.952$, Pvalue <0.002).

This difference is due to lack of awareness in rural mothers about the consequences of inadequate nutrition during pregnancy on mother and foetus. The respondents of both groups did not differ in their attitude towards nutrition but not more than half of them from both the groups have positive attitude (Table 3). Almost 70% of the respondents from both the groups had practise of taking milk and milk products regularly during pregnancy.

More than two third of women from both the groups had practice of eating green leafy vegetables and fruits but less than one third of people from both the groups were practiced eating of pulses. More than 70% of urban respondents were taking egg where as very few (15%) respondents from rural area were consuming egg regularly (Figure 1).Majority of urban mothers (79%) were taking extra meals compared to rural mothers (21%) and the difference was found statistically significant in both the respondents ($\chi^2 = 11.12$, $P < 0.001$) as shown in table 4.

Table 1: Socio demographic characteristics of respondents

Basic characteristics	Urban	Rural
	Frequency	Frequency
Age in years		
15-20	20	38
21-25	56	49
26-30	20	13
>30	4	0
Education		
Illiterate	3	20
Upto 10	60	67
Above 10	37	13
Type of Family		
Nuclear	44	27
Joint	56	73
Occupation		
Working	64	14
Not Working	36	86
Gravida		
Primi	52	62
Multi	48	38
Religion		
Hindu	61	87
Muslim	39	13
Socio Economic status		
I	12	9
II	26	13
III	38	31
IV	18	36
V	6	11

Table 2: Classification of respondents as per their Nutritional knowledge

Knowledge*	Urban	Rural
	No	No
Good	67	50
Poor	33	50

* $\chi^2 = 5.952$ P value <0.002

Table 3: Attitude of respondents towards the nutritional care during pregnancy

Attitude	Urban	Rural
	No	No
Positive	53	51
Negative	47	49

Table 4: Association between practices of taking extra meal and residents

Extra Meal*	Urban	Rural
	Frequency	Frequency
Taking	79	57
Not taking	21	43

* $\chi^2 = 11.21$ P value <0.001

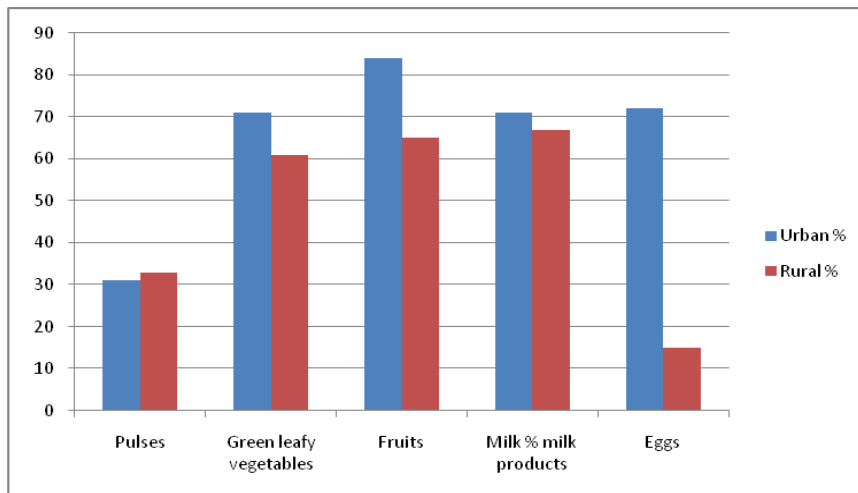


Figure1: Distribution of respondents according to their nutritional practices

DISCUSSION

This study revealed that urban mothers (67%) have good knowledge compared to rural mothers (50%). Most of the rural mothers in this study were lacking the awareness about the consequences of inadequate nutrition during pregnancy on mother and foetus. Similar findings were observed by Latifa M. Fouda.^[8] This may be due to inadequate knowledge about nutritional care during pregnancy as most of the rural mothers lacking of basic access to health needs and less educational qualification. Bharti et al^[9] also have reported that educational qualification is a key determinant of nutritional status in Indian women. However, if mother appreciated the importance of good nutrition during pregnancy, she will plan her diet properly, which will be reflected on her pregnancy outcome.^[10] Similarly like other studies, it is also found that urban women had higher mean of nutritional knowledge and practices compared to women in rural area, while the mean positive nutritional attitude of rural women was nearly as same as the mean attitude among urban women^[11,12]. It has been shown by this study that 68% of urban respondents and 73% of rural respondents are avoiding some foods like papaya, coconut, and meat during pregnancy, however the study conducted by Shahid A et al^[13] showed 53% of them were restricting some food items during pregnancy. Similar findings have been reported by various researchers from different parts of the world for avoidance of meat and fish in Sudan, and buffalo milk in Tamil Nadu. Fish, curds, grapes, mangoes, coconut in different states of India^[14]. So along with education we need nutritional education which is must to change the dietary habits. With regarding to practice, most of the urban women has good practice of consuming green leafy vegetables, milk and milk products, eggs than rural women and there is significant difference in consumption of egg. In contrast to this, a study conducted by Andrzej Wojtyła et al^[15] among the respondents living in the urban areas, higher percentages of negative changes were noted concerning the amount and frequency of consumption of vegetables and fruits, compared to pregnant rural women. This study also revealed that 79% of the urban mothers are taking extra meals during pregnancy but only 57% in rural mothers and the difference in quantity of taking food in both the respondents were statistically significant. Moreover, the most significant predicting factors for knowledge in this study were high women education followed by working. Also, the most significant predictor for good nutritional practice was women's knowledge.

This result supported by the fact that good knowledge about basic nutrients and adequate well balanced diet usually resulting in positive dietary practices which are important determinants of optimum health from conception until death.^[16]

CONCLUSIONS

Most of the rural mothers in this study are lacking the awareness about the consequences of inadequate nutrition during pregnancy on mother and foetus compared to urban women. There is a significant association between women's knowledge and practices of nutrition during pregnancy. So, it is obvious that good knowledge about adequate and well balanced diet usually result in good dietary practices. More than 60% of respondents from both groups are avoiding some foods like papaya, coconut, and meat during pregnancy due to beliefs and taboos.

Recommendations

There is a need to identify local socio-cultural beliefs and practices and to plan customized nutritional intervention programme aiming to improve the maternal nutritional knowledge & practices and eventually improve the health status of the pregnant mothers especially in rural areas.

Limitations

The study design was cross sectional which is a limitation for making any causal inferences. Reporting bias arising from women wanting to provide socially desirable responses especially regarding consumption of milk, egg etc. This would have been overcome by in depth diet survey.

Study population was restricted to the antenatal mothers reported at UHC & RHTC of medical college which limits us in generalizing our findings. However we gain insight into how maternal nutrition can be improved in certain areas.

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