WOMENS' BELIEFS AND PRACTICES REGARDING FOOD RESTRICTIONS DURING PREGNANCY AND LACTATION:

A HOSPITAL BASED STUDY

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Background: Maternal diet is an important determinant of outcomes of pregnancy. Malnutrition during pregnancy and its consequences maximally affect the health and long-term outcomes of the population. Low birth weight accounts for almost 30% of all births; with maternal malnutrition as a dominant risk factor. This study aims to investigate the existing beliefs and practices regarding food restrictions during pregnancy and lactation and also to assess whether there is any relationship with education level of the respondent and their beliefs and practices. **Methods:** A cross-sectional survey was conducted at Community Health Center (CHC) of The Aga Khan University Hospital, Karachi from July- September 2000. Four hundred adult female respondents, who came to the outpatient services as a patient or as an attendant, were interviewed after taking verbal consent. A self administered pre-coded and pre-tested questionnaire was filled by the respondent. **Results:** More than three fourths of respondents were literate. Twelve percent believed in restricting some food item during pregnancy and about 25% believed the same during lactation. No statistically significant association was found between belief about food restriction during pregnancy or during lactation and education level of the respondent. **Conclusion:** Undue food restrictions during pregnancy and lactation do exist in our culture. To assess the true picture we need to conduct larger studies in the community. The information obtained from the studies will help us in addressing these issues for improvement of nutritional knowledge and dietary practices and to avoid undue food restrictions.

Key Words: Food habits; Beliefs; Women's health; Pregnancy; Lactation.

INTRODUCTION

Maternal diet is an important determinant of outcomes of pregnancy. The ignorance about nutritional needs during pregnancy worsens the outcome of pregnancy. Some socio-cultural beliefs regarding food restriction do exist in Pakistan as well as in other developing countries world wide, which can be harmful for maternal health. However, such information in Pakistan is limited. Pakistan National Nutrition Survey (1988) reports that 45% of pregnant and lactating mothers are anaemic. It also reports that on enquiring about foods avoided or reduced during pregnancy allowed multiple answers from each respondent. Hence it was unclear about the relative contribution of replies to the total results.[1] Sood and Kapil had shared their experiences on the nutritional behavior of expectant mothers in rural India. They reported that 64% of pregnant mothers were restricting all foods during the first 6 months, believing that a small baby would be easy to deliver. Other reasons given were the avoidance of indigestion and the advice of mothers- in- law or traditional birth attendants. Foods like sugar, nuts, beans and maize were considered hot and abortifacient and were avoided and so-called "cold" foods, buttermilk, orange and curd were not taken during pregnancy for the fear of harming the fetus.[2] Similar beliefs do exist in our set up also but not much work has been done in this regard. Therefore a need was identified to study the myths regarding food restrictions during pregnancy and lactation.

MATERIAL AND METHODS

A cross-sectional study was conducted, among female patients and attendants presenting to the family physicians, at Community Health Centre (Appointment cum walk in clinic) of Aga Khan University Hospital in Karachi, Pakistan after obtaining their consent. The questionnaire included important demographic characteristics and questions regarding restriction of food items during pregnancy and lactation. A minimum sample of 388 female patients was required using 5 percent level of significance, a bound on error of 5% and an anticipated prevalence of 50 percent. Descriptive statistics like percentages, mean and standard error of mean were obtained. SPSS for Windows (version 10) software was used to analyze the data.

RESULTS

The mean age of the respondents was 39.6 years (Standard Error of mean = 0.56 years). About 90% were married and majority of them were housewives.

Table-1A: Percentage distribution of various foods restricted by the respondents during pregnancy by their educational level

Food Item Restricted	Illiterate	Primary	Secondary	Intermediate	Graduate & above	All
Hot food	33.3	80.0	50.0	54.5	33.3	47.6
Badi[1] food	33.3	0.0	14.3	18.2	13.3	14.6
Oily food	0.0	20.0	14.3	0.0	20.0	12.5
Potato	0.0	0.0	14.3	9.1	13.3	10.4
n (Respondent reported restrictions)	3	6	14	11	16	50
No food item restricted	94.5	81.8	88.5	84.7	86.4	87.5
n (Total respondents)	55	33	122	72	118	400

[1] *Foods that generate "gas/air" in the stomach i.e. difficult to digest*

Table-1B: Percentage distribution of various foods restricted by the respondents during lactation by their educational level

Food Item Restricted	Illiterate	Primary	Secondary	Intermediate	Graduate & above	All
Cold food/Ice cream	50.0	23.0	44.8	55.5	46.3	45.9
Badi Food	14.3	44.5	24.1	38.9	36.5	30.8
Heavy food	21.4	12.5	10.3	16.7	6.7	11.9
Sour food	7.1	12.5	10.3	11.1	10.0	10.0
Rice	21.4	12.5	6.9	11.1	3.3	9.0
n (Respondent reported restrictions)	14	9	29	18	31	101
No food item restricted	74.5	72.7	76.2	75.0	73.7	74.8

n (Total respondents)	55	33	122	72	118	400

Eighty six percent of the respondents were literate and amongst them 48 percent were intermediate and above. Family members and friends are major sources of information for food restrictions. The findings of our study were, 12% believed in restricting some food item during pregnancy and about 25% believed the same during lactation. Hot food was the major item restricted by the respondent during pregnancy and cold food was the major food item restricted during lactation. No significant association was found between belief about food restriction during pregnancy and education level of the respondent (χ^2 = 4.216; df =4, p-value = 0.378). Similarly no significant association was found between belief about food restriction during lactation and education level of the respondent (χ^2 = 0.282; df =4, p-value = 0.991). Table 1A and 1B shows respondent's beliefs and practices regarding food restrictions of major items during pregnancy and lactation by education level of the respondent.

DISCUSSION

Our study shows a low percentage of respondents' belief in restricting some food item during pregnancy or lactation. The reason for these low figures could be, because our study was hospital based where the respondents were more health conscious and more aware of nutritional needs during pregnancy and lactation. Hot, badi and oily foods were the major items restricted during pregnancy and cold, badi and heavy foods were the major food items restricted during lactation. On the contrary Mahmood et al has reported that 84% of women during pregnancy and lactation avoid foods like beef, eggs, brinjal, fish and citrus fruits as these are considered hot and could have ill effects on their babies[3]. This study was done in an urban and rural area of Lahore and was community based. Similar findings have been reported from different parts of the world, as avoidance of meat and fish in Sudan, buffalo milk in Tamil Nadu (India), fish, curds, grapes, pineapple, mangoes, coconut in India, dal in South India, melon, sugarcane and long bananas in Vietnam.[4] Therefore, we recommend further larger studies should be conducted in the community in this regard to know more about their cultural beliefs. Our main concerning issue is that we feel these dietary restrictions leads to anemia, malnutrition, and low birth weight and intra uterine growth retardation, which consequently worsen the pregnancy outcome. Malnutrition during pregnancy and its consequences stand to maximally affect the health and long-term outcomes of the population. Low birth weight infants account for almost 30% of all births, with maternal malnutrition as a dominant risk factor.[5] Our study also didn't show any significant association between the education level of the respondents and their beliefs about food restrictions during pregnancy and lactation. Hence we need to emphasize health awareness sessions in the community. Therefore we feel that proper health educational program should be launched to address these issues appropriately once we have identified our local socio-cultural beliefs and practices. However this can be promoted by improving nutritional knowledge and dietary practices of population in general and vulnerable groups in particular through media and maternal and child health services. The involvement and training of existing traditional health practitioners would also encourage the people to change their health behavior and to avoid unnecessary food restrictions which would be particularly useful in improving maternal and child health.

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