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PREGNANCY AND FOOD

WOMEN BELIEFS & PRACTICES REGARDING FOOD DURING PREGNANCY---A HOSPITAL BASED STUDY"

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ABSTRACT…Objective: The aim of the study was to assess the existing beliefs and practices regarding food during pregnancy. **Design:** Cross-sectional study. **Place and duration of study:** The present study was conducted in Antenatal Clinic, Department of Gynecology and Obstetrics at Holy Family Hospital, Rawalpindi. This study was conducted in four months time from September 1st to December 31st, 2008. **Patients and methods:** Sample size was 189 pregnant females who were attending the Antenatal Clinic, Department of Gynecology and Obstetrics at Holy Family Hospital, Rawalpindi. This was calculated by computer software called Raosoft- a sample size calculator by keeping confidence level 95%, margin of error 5%, and response rate 86%. Simple Convenience Sampling technique was used. **Results:** 89% believed that there is an effect of food on pregnancy and 11% did not. Despite of high literacy rate (93%) there are certain strong food beliefs regarding pregnancy which have been practiced by pregnant ladies, which were effecting their food intake like hot, cold, badi and having difficult labour. **Conclusions:** All available resources for creating awareness among the masses regarding the importance of diet during pregnancy should be used properly by using all means of communication (especially mass media).

Key words: Women beliefs, pregnancy, nutrition, diet during pregnancy, beliefs during pregnancy

INTRODUCTION

Pregnancy is one of the most nutritionally demanding times in a woman's life. Although it is a normal physiological process but it is a time when the nutritional needs of the mother and the fetus must be met through careful choice of foods. Even before pregnancy begins, nutrition is a primary factor in the health of mother and baby. A well-balanced diet before conception contributes to a healthy pregnancy.

The period of development in the womb is critical for the health of the child, both at birth and long afterwards. One of the most important risk factors at this stage is maternal nutrition. Inadequate nourishment increases risks of a wide range of gestational and perinatal problems. Low birth weight is especially important, for this not only one of the main causes of perinatal mortality, but also has long-term effects on development and health status. Lack of crucial nutrients during pregnancy is likewise associated with pre-eclampsia and hypertension, both of which can lead to increased perinatal mortality. In addition, foetal under nutrition has been found to be associated with increased risks of mental and neuro-behavioural impairment, as well as some congenital anomalies (e.g. neural tube defects). Under nutrition is an important factor responsible for low birth weight which is an important factor for high infant and maternal mortality rate. Appropriate nutritional practices on the other hand play a vital role in determining optimal health and development of infants[1].

Nutrition is the main area of public health interest and particularly maternal nutrition has a prime role as it's not only affecting the health of the mother but also our future generation. Healthy beginning mainly depends on maternal diet. This area has been heavily influenced by

our some socio-cultural beliefs regarding food especially during pregnancy. There are some avoidance and restrictions which exist in our society as well as in other developing countries world wide, which can be harmful for maternal health. Pakistan National Nutrition Survey (2001-02) reported that 12.5% of non-pregnant future mothers were malnourished (BMI <18.5); and children between 6-59 months 38% were stunted and 13.1 % were waisted. They also enquired about food reduced and restricted during the pregnancy[2]. However, not much evidence based information available to us as limited research has been conducted in Pakistan. This area needs further exploring and at the same time implementation of public health interventions to tackle this issue.

A study on the nutritional behavior of expectant mothers in rural India 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 mentioned were the difficult to digest, advice of mothers-in- law or health care workers. Certain foods 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 having bad effects on the fetus[3].

Three well-known reasons for low nutritional status of pregnant women are (i) wide spread poverty, (ii) discrimination against women and female children in household food distribution and health care, and (iii) lack or poor quality of antenatal care. Food habits of people are deeply influenced by their culture and occupation[4]. Whether or not the beliefs and practices regarding food during pregnancy are significant additional reasons for the, low nutritional status of pregnant women and undesirable reproductive outcome is an important question which has been hardly addressed by scholars. Anthropologists and nutritionists have, conducted studies on various aspects of food beliefs and practices of pregnant women in communities and hospitals; but most of these are limited by narrow disciplinary perspectives and have not discussed in any depth the possible effects of specific beliefs on the dietary behavior maternal nutrition and on reproductive outcome.

PATIENTS AND METHODS

Sample size was 189 pregnant females who were attending the Antenatal Clinic, at Holy Family Hospital, Rawalpindi. This was calculated by computer software called Raosoft- a sample size calculator by keeping confidence level 95%, margin of error 5%, and response rate 86%.

Sample Selection

Sample selection was done by the following inclusion and exclusion criteria:

a. Inclusion Criteria

All pregnant female attending antenatal clinics of above hospital were included in the study.

b. Exclusion criteria

Pregnant ladies visiting other department of Holy Family Hospital were not included in the study.

Data collection procedure

A Questionnaire (close – ended) was designed in Urdu for this purpose, comprising of two sections to assess the beliefs and judge the application of these beliefs in their diet intake during pregnancy. Verbal consent was taken before the start of study and reassurance was given about the confidentiality of their information, each question was explained in the language they understood and questionnaire was filled on spot so as to get unbiased remarks.

RESULTS

Assessments of beliefs regarding food during pregnancy.

Assessment of practices regarding food intake or avoidance during pregnancy.

DISCUSSION

This study was conducted to explore the beliefs regarding food and practices in pregnant females. Though this area has not been neglected and not researched as well as it should be but the present study findings are not different from the previous work. The encouraging thing of this study was the literacy rate which was 93%, may be due to the reason in cities more

Table-I. Demographic Profile of pregnant ladies (n = 189)

Mother's Profile	%age
Current age	
< 20yrs	7%
21-25 yrs	33%
26–30 yrs	49%
31-35 yrs	11%
Occupation	
House wife	92%
Working	8%
Monthly income	
< 5000	15%
5000-10,000	55%
> 10,000	30%
Education	
Illiterate	7%
Middle	11%
Matric	23%
Intermediate	29%
Graduate	26%
Post graduate	4%

Table-II. Beliefs of pregnant ladies regarding food (n = 189)

Effect of food on pregnancy	89% believed an effect 11% did not believed
Amount of food intake during pregnancy	63% increased food intake 30% routine diet 7% did not know to increase or not
Belief about food during pregnancy	19% believed that few foods should not be eaten 55% believe that no food should be stopped 26% did not know whether few foods should be stopped or not
Cravings	7% craved clay, 20% craved tamarind, 23% craved spicy pickles, 16% craved lemon, 12% craved spicy food, 18% craved sweets, and 4% craved dates in hot milk
Reason for eating less during pregnancy	55% believed they feel better if eat less food, 37% had loss of appetite, 4% believed eating less makes labour easy, and 4% were not eating less

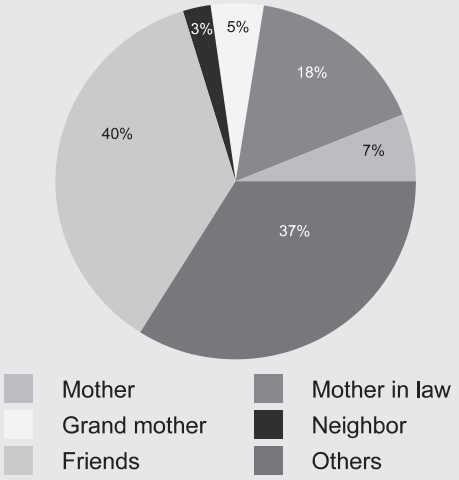
Table-III. Assessment of practices regarding food intake or avoidance during pregnancy: (n = 189)

Food intake	Food avoidance
Cereals	
100% wheat, 86% rice, 37% maize, 25% millets	69% believed cereals not digestible, 20% believed that they produce some difficulty in labour, 11% did not know the reason
Pulses	
85% were using dal mung, 81% eating lentil, 74% were eating mash and 33% were grams	37% believed they are difficult to digest, 22% considered them hot, 14% believed them cold, 52% believed them flatulence (badi)
Milk and milk products	
100% milk, 70% yoghurt and butter, 63% desi ghee	48% believed not digestible, 4% believed them to be hot, 26% believed them to be cold, 4% believed these to be badi
Fruits and vegetables	
100% were using seasonal fruits 89% having seasonal vegetables	11% were not using one or the other seasonal vegetable like turnip, bitter guard and brinjal considered badi
Meat, Poultry and Egg	
71% consumed beef, 75% consumed mutton, 96% consumed chicken, 62% consumed fish and 60% consumed eggs	6% believed meat is difficult to digest. 51% considered fish and egg to be hot 6% considered beef to cause difficulty in labour

females are getting education and mainly those women approach hospitals. Even with high literacy rate the beliefs and practices were so much influenced by the cultural practices that the relationship between education and food beliefs doesn't has any significant role. One reason which is shown by this study is that the source of information in majority of cases is either mother or mother – in – law(Fig: 1).Similar findings are seen in

study conducted in Punjabi immigrant females in Canada identifying major role of the incidence of traditional health beliefs and practices related to the perinatal period (e.g., diet, lifestyle, and rituals), the important role of family members in supporting women during the perinatal experiences[3]. It also highlights the importance that we need to target the behavioral change through our health education programmes.

Fig-1. Source of information regarding food intake during pregnancy



It has been shown by this study that 63% of the respondents believed that amount of food intake during pregnancy in general should be increased, and 55% believed that no food item should be restricted during pregnancy. Similar results were seen in a study conducted by Bishnoi and Gupta,[4] regarding traditional beliefs and practices regarding nutrition during pregnancy. These reported that 61% of respondent's belief in no food restriction during pregnancy and 39% mothers advocate some sort of food restriction in pregnancy. So along with education we need Nutritional education which is must to change the dietary habits.

Cravings during pregnancy are very well documented in literature although the exact etiology of this is still not known, need to be investigated thoroughly. This study showed that 28% of the females craved, one or more items like clay, tamarind, pickles, etc. Certain food items are considered to be harmful and beneficial during pregnancy. When these respondents were inquired about main food items in different food groups, it as seen that 53% of them were restricting food items like rice, millet, maize, gram, beef, eggs, fish, yogurt, butter roots and bitter guard etc. The reason for restricting these were that food items like millet, maize, butter, ghee / oil, were considered indigestible, foods like beef, eggs, fish, bitter guard were "hot" and gram and roots were considered to be "baadi" during pregnancy. Similar beliefs are prevalent in Iranian females which referred to 'hot-cold' values, foetal attributes, satisfaction of cravings, survival of the mother, and quantity and quality of breast milk. 'Mother's diet provides strength that sustains life' emerged as the most relevant core concept in these females[5].

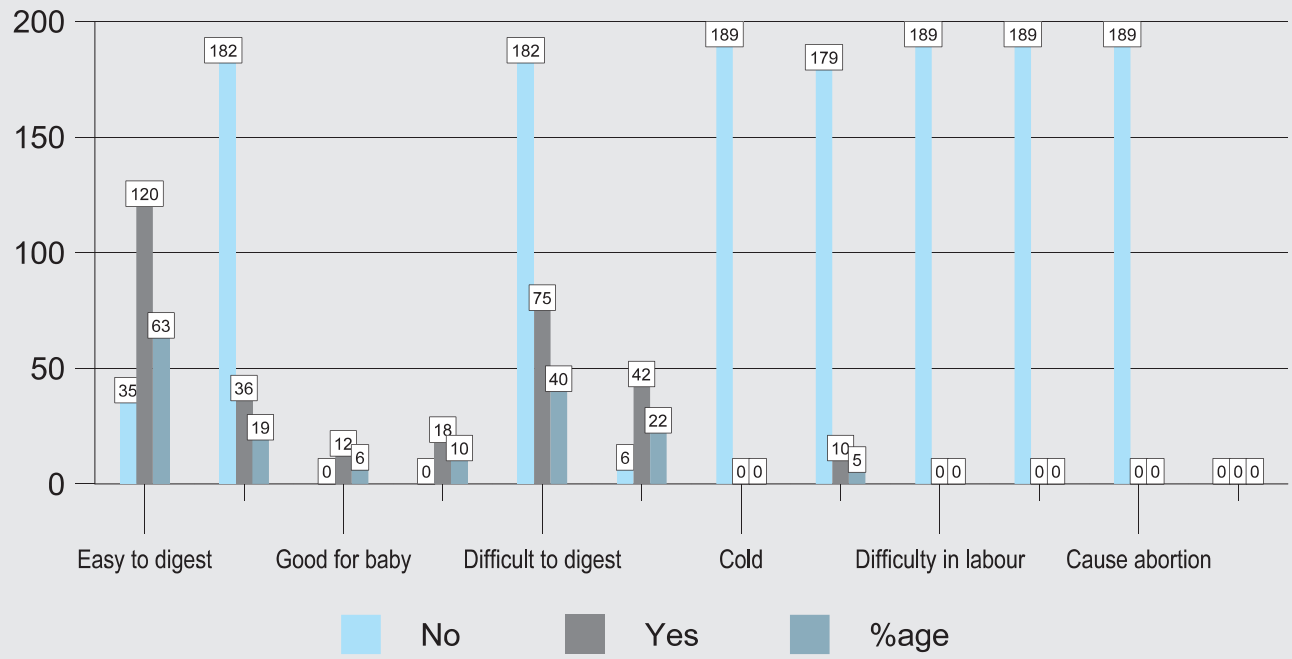
On the contrary a hospital based study recently conducted in Pakistan[6], has reported that 12% of women during pregnancy restrict some food items. Another study reported that 84% of women during pregnancy and lactation avoid foods like beef, eggs, brinjal, fish and citrus fruits as these are considered to be hot and could have ill effects on their babies[7]. This study was done in urban and rural area of Lahore and was community based.

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 studies carried out in different states of India[8]. Respondents preferred eating food items like wheat, milk, seasonal fruits, banana, mangos, orange, melons, milk, seasonal vegetables, chicken and herbs like, saunf. These food items are consumed with a belief that they are easy to digest and are nutritious and energy giving foods for the health of the mother and baby[8].

CONCLUSIONS

The educated females who were attending hospital seem to be more health conscious and more aware of the nutritional needs during pregnancy. The results showed that a large percentage of the pregnant females were restricting one or the other food item. They were having a general belief of increasing food intake during pregnancy but not practicing intake of balance diet with proper

Fig-2. Reasons for herbs used or restricted during pregnancy



proportion of every available food group in their daily life.

There is a need to identify local socio-cultural beliefs and practices through large community based studies and improve the nutritional knowledge of the mothers through awareness and health education will decrease the malnutrition in pregnant mothers.

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"Learn from yesterday, live for today, hope for tomorrow."

(Albert Einstein)