

NUTRITIONAL PRACTICES OF RURAL EXPECTING WOMEN

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ABSTRACT

Nutrition during pregnancy is very essential for maternal and child health. But rural women face difficulties to access health services or consume healthy diet throughout their life and during pregnancy. So to rectify these difficulties, it was necessary to know nutritional practices followed by rural women during pregnancy. The present cross-sectional community based study was carried out in villages of Deesa taluka of Banaskantha district of Gujarat state. A total of 60 respondents from 6 villages (10 from each village) were randomly selected. Self-prepared interview schedule was used to measure socio-personal variables, food habits, physiological changes and health care. Data was collected by personal interview techniques. Appropriate statistical measures were used to analyze the data. The study showed that miserably, 10 per cent, 31.67 per cent and 35 per cent of respondents were consuming protein rich foods such as meat, fish and egg; pulses and legumes; and milk and milk products, respectively. Only 13.33 per cent and 35 per cent of the respondents were consuming vegetables (GLVs and others) and fruits, respectively. The respondents were from joint family (80%) with 4 to 8 family members (60 %) having low monthly income (65 %) suffering from fair appetite (53.33 %), stomach upset (60 %) and nausea (50 %). These may be the reasons that they were of not following a healthy dietary pattern. Certainly, it was also found that the 70 per cent respondents were consuming 3 major meals (mainly cereals), 78.33 per cent were not taking any non-food material, 78.34 per cent were consuming nutritional supplement and 65 per cent were taking medicine. All of the respondents visited hospitals at least once for health check during pregnancy and among those, 43.34 per cent visited once in a month. Therefore, creating awareness of eating various food groups and developing healthy dietary habit during pregnancy in rural women might be beneficial.

KEY WORDS: Nutrition, Pregnancy, Rural, Women

INTRODUCTION

India is the second most populous country of the world with population of 1,21,01,93,422 people, of which 58,64,69,174 are women. Among these women, 18,12,98,564 lives in urban and 40,51,70,610 lives in rural areas (Anonymous, 2011). There is a vast variation in the lifestyle and

practices among urban and rural women. The rural women population contributed significantly to our country in every sphere, be it census count, agriculture, economy, society or development but they are least likely to receive adequate health care. In India, despite of number of nutrition interventions, maternal mortality rate was 174 per 100,000 live births (Anonymous, 2015b), birth rate was 19.3 births per 1000 population (Anonymous, 2016), infant mortality rate was 38 per 1000 live births (Anonymous, 2015a), neonatal mortality rate was 27.7 per 1000 live births (Anonymous, 2015b), and low birth weight prevalence was 28 per cent (Anonymous, 2013).

The mortality rate remains high underpinned by the fact most deliveries take place at home, away from emergency obstetric care and without a skilled attendant; moreover, poverty, inappropriate consumption of food, unhygienic practices, lack of information, inadequate care and services, cultural practices, taboos, ritual observances, early marriage, adolescent pregnancy, birth space, burden of work at home, inadequate transportation facilities, etc. which are widely documented in both rural and tribal population.

Nutrition plays the significant role during pregnancy as it is the critical period. Good maternal nutrition is a key factor influencing the health of both mother and child. During the prenatal period, the developing foetus obtains all of its nutrients through the placenta, so dietary intake increases to meet the needs of the growing foetus and of maternal tissues associated with it. Well balanced diet combined with regular physical activity is a cornerstone of good health, whereas poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development and reduced productivity (Anonymous, 2006). Therefore, women of child-bearing ages should maintain good nutritional status through a lifestyle that optimizes maternal health and reduces the risk of birth defects, suboptimal foetal growth and development and chronic health problems in their children. The key components of a health promoting lifestyle during pregnancy include appropriate weight gain, appropriate physical activity, consumption of a variety of foods in accordance with the dietary guidelines for pregnancy, regular antenatal checkups, appropriate and timely vitamin and mineral supplementation, avoidance of alcohol, tobacco and other harmful substances and safe food handling (Kaiser and Allen, 2008). However, rural women may find it harder to access or consume all the necessary components of a healthy diet throughout their life and during pregnancy. Thus, it has become imperative to assess nutritional practices followed during pregnancy which will help in designing appropriate nutritional interventions in rural expecting women.

MATERIALS AND METHODS

The present cross-sectional community based study was carried out in 6 villages of Deesa taluka of Banaskantha district of Gujarat state. A total of 60 respondents from 6 villages (10 from each village) were randomly selected. Rural expecting women who were willing to participate in the study were taken. Self-prepared interview schedule was used to measure socio-personal variables (age, religion, education, family type, family size, occupation, family income, age of marriage and number of pregnancy), food habits (type of diet, frequency of major meals, appetite, food groups and non-food material) and physiological changes and health care (service utilization, health check-up, intake of medicine, nutritional supplement, type of delivery and place of delivery). Data was collected by personal interview techniques. Appropriate statistical measures were used to analyze the data.

RESULTS AND DISCUSSION

The study in its broad sense is an attempt to find out nutritional practices among rural expecting women. The study findings have been presented as follows.

The results presented in Table 1 illustrate the socio-personal information of respondents. With regard to age, majority of the expecting women were in the age range of 20 to 30 years (80 %) followed by 16.64 per cent in the age group of above 30 years. Majority of respondents (90%) were following Hindu religion and were educated till elementary level (51.66 %). Most of the respondents from total sample were from joint family (80 %) and had 4-8 family members and 20 per cent belonged to nuclear families. Sixty per cent of the respondents were homemakers and 23.33 per cent were involved in farming. Sixty five per cent of respondents were having monthly income of less than ten thousand, whereas very few were having above fifty thousand monthly family incomes (3.33 %). Almost half of the respondents (46.7 %) had 2-3 number of pregnancy followed by 33.3 per cent women who had first pregnancy.

It was found from the food habits of rural expecting women (Table 2) that majority of the respondents (90 %) were following vegetarian diet. Maximum numbers of respondents (70 %) were consuming 3 major meals per day followed by 23.34 per cent consuming 2 major meals per day. Only 6.68 per cent respondents were consuming more than 3 major meals per day. The main portion of the diet was cereals. 53.33 per cent of respondents had fair appetite and twenty five per cent women with good appetite. Lack of good appetite may be due to nausea, vomiting, morning sickness, stomach upset or tension. Almost all respondents (95 %) were consuming cereals and millets, 66.67 per cent roots and tubers, 35 per cent fruits, 35 per cent milk and milk products and 31.67 per cent pulses and legumes. Only 13.33 per cent and 10 per cent of respondents were consuming vegetables (GLVs and others) and meat, fish and egg, respectively. The results showed that respondents were getting enough energy from cereals and avoiding foods containing protein, vitamin and minerals. Similar trend was seen in the study by Huybregts *et al.*, (2009). Sadly, consume of a less amount of vegetables, pulses, legumes, fruits, milk and milk products may lead to various problems such as constipation, anemia and other nutritional deficiencies. A study on dietary intake of expectant mother revealed that proper dietary balance of mother's diet is necessary to ensure sufficient energy and nutrient intake for adequate growth of the fetus without depleting maternal stores and damaging mother's own tissues to maintain her pregnancy (Mridula *et al.*, 2003). It was also found that 11.67 per cent of women were consuming non-food material i.e. chalk followed by almost equal consumption of clay (5.0 %) and soil (5.0 %). Eating such food is known as pica in pregnancy. Qureshi and Khan (2015) reported that pregnant mothers had a craving for foods like clay.

The data presented in Table 3 represents the physiological changes and care during pregnancy. In this period, body goes through many physiological changes. It was found that maximum number of respondents had stomach upset (60 %) and equal per cent of respondents had chest burn (20 %) and started binge eating (20 %). Again equal per cent of respondents had constipation (13.34 %) and food cravings (13.34 %). It was noted that morning sickness (50 %) and swelling of feet (50 %) were the major symptoms felt during pregnancy. Hopefully, there were only 15 per cent of anemic respondents. Utilization of health services was higher in government hospitals (75 %) as compared to private hospitals (25 %). Similar findings were reported by Madhavi and Singh (2011), wherein utilization of health services was more in government hospital (78.63 %). Around 43.34 per cent of respondents were visiting hospitals once in a month for health check-ups. Miserably, 26.67 per cent of respondents were visiting hospital only once in three months and 10 per cent of respondents had gone for health check-up only once in nine months. Majority of respondents (65 %) were taking medicine advised by doctors. Gladly, 78.34 per cent of respondents were consuming nutritional supplements for nourishment of their fetus. Almost similar results were found by Qureshi and Khan (2015) in

which they reported that around 61 per cent mothers started to take some food supplement during pregnancy. About 71.67 per cent of respondents had normal delivery and 78 per cent of respondent preferred hospital delivery.

CONCLUSION

Rural expecting women were mainly consuming cereals and they were avoiding other food groups which provide important nutrients such as protein, vitamin and minerals. The reason behind not consuming all food groups may be they had fair appetite and were from joint family with more family members having low income so they were not able to manage to take care of themselves. Certainly, the respondents were consuming 3 major meals, nutritional supplement and medicine, and they were not taking any non-food material. All of the respondents visited hospitals at least once for health check during pregnancy. Therefore, creating awareness about various food groups and importance of various nutrients in pregnancy through nutrition education sessions to expecting women and their families will be helpful for healthy pregnancy outcome.

ACKNOWLEDGEMENT

Author profusely acknowledges the support given by the expecting women and Anganwadi workers for their whole hearted support during the study period.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

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Table 1: Socio-personal information of rural expecting women

Variables		Frequency	Percentage
Age (in years)	<20	02	03.34
	20-30	48	80.00
	>30	10	16.64
Religion	Hindu	54	90.00
	Muslim	06	10.00
Education	Illiterate	12	20.00
	Elementary	31	51.66
	High School	05	08.34
	Graduate	06	10.00
	Can only signature	06	10.00
Type of family	Joint	48	80.00
	Nuclear	12	20.00
Family size (in numbers)	<4	12	20.00
	4-8	36	60.00
	>8	12	20.00
Occupation	Business	05	08.33
	Government employees	02	03.33
	Homemaker	36	60.00
	Labourer	03	05.00
	Farmer	14	23.33
Family income/ month (in ₹)	<10,000	39	65.00
	10,000-25,000	13	21.67
	25,000-50,000	06	10.00
	>50,000	02	03.33
Age of marriage	Before 18 years	19	31.67
	After 18 years	41	68.33
Number of pregnancy	1	20	33.30
	2-3	28	46.70
	4-6	12	20.00

Table 2: Food habits of rural expecting women

Variables		Frequency	Percentage
Type of diet	Vegetarian	54	90.00
	Non-vegetarian	06	10.00
Frequency of major meal	2	14	23.34
	3	42	70.00
	More than 3	04	06.68
Appetite	Good	15	25.00
	Fair	32	53.33
	Poor	13	21.67
Food groups (multiple responses)	Cereals and millets	57	95.00
	Pulses and legumes	19	31.67
	Vegetables (GLV and others)	08	13.33
	Roots and tubers	40	66.67
	Fruits	21	35.00
	Milk and milk product	21	35.00
	Meat, fish and egg	06	10.00
Non-food material	Chalk	07	11.67
	Clay	03	05.00
	Soil	03	05.00
	Not consume	47	78.33

Table 3: Physiological changes and health care during pregnancy

Variables		Frequency	Percentage
Physiological changes (Multiple responses)	Stomach upset	36	60.00
	Constipation	08	13.34
	Chest burn	12	20.00
	Diarrhea	06	10.00
	Binge eating	12	20.00
	Food craving	08	13.34
	Nausea	30	50.00
	Swelling of feet	30	50.00
	Anemia	09	15.00
	High blood pressure	06	10.00
	Low blood pressure	12	20.00
	Other infection	06	10.00
	No symptoms	05	08.30
Service utilization	Govt. hospital	45	75.00
	Private hospital	15	25.00
Health check-up	Once in a week	12	20.00
	Once in a month	26	43.34
	Once in 3 months	16	26.67
	Once in 9 months	06	10.00
Intake of medicine	Yes	39	65.00
	No	21	35.00
Nutritional supplement	Yes	47	78.34
	No	13	21.66
Type of delivery	Normal	43	71.67
	Caesarean	17	28.33
Delivery place	Home	13	21.68
	Hospital	47	78.00