Original Article

Food Taboos and Cultural Beliefs among Pregnant Mothers in Rural Sindh

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ABSTRACT

OBJECTIVE: To identify food beliefs, dietary practices and their determinants among pregnant women of rural Sindh.

METHODOLOGY: This cross-sectional study involved 180 pregnant women attending antenatal clinic of Muhammad Medical and Dental College. Participants were selected randomly.Inclusion criteria were pregnant women with any gestational age. Exclusion criteria were those pregnant women with any obstetrical emergency attending O.P.D. Information was collected on preformed questionnaire by interviewing pregnant women from July 2020 to December 2020. Information about their sociodemographic features, food beliefs and taboos and their knowledge about dietary intake in pregnancy was recorded. Data was analysed using SPSS version 22. Descriptive analysis was performed. Chi-square test is used to assess the association. P value of <0.005 was considered to be significant.

RESULTS: In a total of 180 women selected for the study, 98% women believed that women should take good diet and increase calorie intake during pregnancy, but majority (90%) of participants had some kind of food taboos and beliefs during pregnancy. Most protein rich food avoided were classified as 'hot foods' considered to cause abortion and preterm birth. Orange, bananas were considered as 'cold foods' and lead to sore throat and cough. Dry fruits were avoided because of belief that these will increase birth weight of foetus.

CONCLUSION: Majority of the pregnant mothers were observed to follow one or more food taboos irrespective of parity, gestational age, monthly income, occupation and educational status with significant association.

KEY WORDS: Food taboos, Cultural, Beliefs, Pregnant, Mothers, Rural Sindh

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INTRODUCTION

Food taboos are food and beverages that people abstain from consuming for religious, cultural, or hygienic reasons[1] .Consequently, people practicing these pregnancy-related taboos believe that breaking them may harm the unborn baby or threaten the health of the mother[2]. These taboos result in restriction of a specific food as a result of social and religious customs[3]. Since nutritional status of the mother is one of the most vital indicators of maternal and fetal development, therefore it is considered a moral obligation to provide sound nutrition throughout the pregnancy state[4]. Worldwide, more than 9.8 million pregnant women suffer from vitamin deficiency and around 18 % of such women also have some sort of iron-related deficiency[5]. However, some pregnant women often lack access to a healthy diet that provides for their increase nutrition requirements because of some food taboos which are often practiced in low-and middle-income countries[6].

As per UNICEF food care health reasonable system, social standards restrictions and convictions like inside the logical variables included as one of the essential reasons for unhealthiness[7]. These preclusions are in some cases related with extraordinary occasions like feminine periods, pregnancy, labor and lactation. Prohibition of food during pregnancy has implications on the health of both mother and fetus[8]. Nourishment is generally basic during pregnancy since helpless sustenance puts both mother and fetus in danger. Poorly nourished expectant mothers are at higher risk of having preterm labour, fetal growth restriction and also have multiple threats to their own health and survival[9]. Food restrictions and limitations are especially rigorously seen during pregnancy as pregnant ladies are viewed as more defenseless and thus what they eat should be managed to ensure the baby and decrease the event of complicated labor and delivery[10, 11].

To promote maternal and child health nutrition is a pivotal concern for upholding public health, more importantly in low-income populations[12]. Wherein some societies where there are beliefs that a food might be harmful for pregnant mothers, on the other hand there also exist food which are through to be beneficial for the mother. For instance, some wild plants are considered to ease the process of

parturition, for stimulating production and secretion of breast milk, preventing anaemia and strengthen fetal development, therefore leading to improvement in the overall health of mother and fetus[13,14].

The main rationale of study to identify food beliefs, dietary practices and their determinants and the association of food taboos with baseline characteristics like age, literacy rate, income, occupation, gestational age and parity among pregnant women of rural Sindh

METHODOLOGY

This cross-sectional observational survey was done using non-probability convenient sampling technique conducted from July-December 2020 at the out-patients department (O.P.D) of Muhammad Medical and Dental College Hospital (MMDCH) located at Ratanabad Mirpurkhas. Participants were enrolled randomly who were willing to participate in study, interviewed using a structured pretested questionnaire about their own beliefs and practices of food taboos during pregnancy. Total 180 participants were interviewed. Inclusion criteria were those pregnant women with any gestational age. Exclusion criteria were pregnant women with any obstetrical emergency (like antepartum haemorrhage, eclampsia or uncontrolled hypertension, incomplete miscarriage, ectopic pregnancy) attending O.P.D. or emergency

The age, parity, education, occupation, monthly incomes, gestational age at time of interview, inter-pregnancy interval of the participants were ascertained. Age was categorized into <20 years, 21-40 years and >40 years. Parity was grouped as 1st pregnancy, 2nd to 5th pregnancy and >5th pregnancy. Education status was sub-divided into no education, 1st to 5th class, 6th to 8th class, >9th class. Income was divided into earning <5 thousand PKR, >5 to 15 thousand PKR, >15 to 25 thousand PKR, > 25 thousand PKR (Pakistani rupee). Gestational age was grouped in first, second and third trimesters. Inter - pregnancy interval was divided into <12months, >12 to 24 months, >24 months. Occupation was categorized as housewife, farmer, keep the cattle or other.

Pregnant ladies were met to decide if they acknowledge that specific food varieties not be eaten by pregnant ladies and explanations for eversion of specific food sources in pregnancy and their interests or convictions about specific food varieties in pregnancy. They were asked whether or not pregnant women should have healthy diet in pregnancy, or should increase calorie intake or not in pregnancy. Women were asked about their belief that certain foods leads to difficulty in labour. They were asked to enlist the food, if they consider certain as hot or cold in pregnancy. Women were asked the number of meals should be taken in 24 hours, and whether pregnant women should take meal before all, with all or after all family members have taken meals to highlight cultural norm among pregnant women.

Data was analysed with SPSS version 22. Qualitative data was expressed as frequency and percentages. Chi-square test was applied to assess the association. P value of <0.05 was taken as significant level. Study variables of interest included were age, parity, occupation, education, gestational age, inter-pregnancy interval and their association with food taboos were noted. Other study variables were nutrition related factors such as food taboos and related misconception, meal frequency during pregnancy. The response to the act of food restrictions were arranged as Yes (for the individuals who rehearsed) and No (for those that doesn't rehearsed) was recorded.

RESULTS

Table I shows the socio-demographic variables. There were 180 respondents interviewed using preformed questionnaire. .Out of 180 respondents majority 127 women (70%) were within age 21-39 years. Education status of 72 women (40%) were never went school, on the other hand 53 women (29.4%) attained secondary education. Income of 19 women (10.6%) was <5000PKR , 57 women (13.7%) were earning 5000 to 15,000 PKR, 59 women (32.8%) were earning 15,000 to 25,000 PKR and 45 women (25%) were earn >25,000 PKR. Majority of respondents was housewife 98 women (54%), while 82 women (46%) belong to different occupations. **Table II** shows majority of respondents were having 2-5 pregnancies of 94 women (52%) while 58 women (32%) were in their first pregnancy. Inter-pregnancy interval of majority of participants 119 women (66%) was >12 months to 24 months. Gestational age of respondents was 60 women (33%) in first trimester, 65 women (36%) were in second trimester, and 55 women (30%) were in third trimester. **Table III** shows majority of 162 women (90%) have some form of food taboos in pregnancy and practice avoidance of certain foods during pregnancy and the explanations behind keeping away from specific food sources in pregnancy dependent on convictions and restrictions. **Table IV** shows the association in-between baseline characteristics of pregnant mothers with food taboos in terms of gestational age, parity, household income (monthly), educational status and occupation. Significant association existed with food taboos with age (p=0.0150) literacy rate (p<0.001), income (p<0.001), occupation (p<0.001), gestational age (p<0.001) and parity (p<0.001).

TABLE I: DEMOGRAPHIC CHARACTERISTICS OF WOMEN (n= 180)

	Variable	N	%
Age	Less than 20 years	34	18.9
	21 to 39 years	127	70.5
	40 years and above	19	10.6
Literacy Rate	Nil	72	40.0
	Primary	26	14.4
	Middle	29	16.1
	Secondary	53	29.4
Monthly Income	Less than 5,000 PKR	19	10.6
	Greater than 5,000 - 15,000 PKR	57	13.7
	Greater than 15,000 - 25,000 PKR	59	32.8
	Greater than 25,000 PKR	45	25.0
Occupation	House wife	98	54.4
	Farmer	32	17.8
	Keep cattle	28	15.6
	Other profession	22	12.2

TABLE II: CLINICAL CHARACTERISTICS OF WOMEN (n= 180)

	Variables	n	%
Gestational age	1st trimester	60	33.3
	2nd trimester	65	36.1
	3rdtrimester	55	30.6
Parity	Primigravida	58	32.2
	2-5 children	94	52.2
	Greater than 5 children	28	15.6
Inter-pregnancy interval	Less than 12	33	18.3
	12 to 24 months	119	66.1
	Greater than 24 months	28	15.6

TABLE III: NUTRITIONAL STATUS OF WOMEN (n=180)

Variable		n	%
Should women take good diet in pregnancy			
	Yes	178	98.9
	No	2	1.1
Should women increase calorie intake in pregnancy			
	Yes	163	90.6
	No	17	9.4
Number of time a women should take meal in 24 hours			
	Once	0	0.0
	Twice	8	4.4
	Three times a day	170	94.4
	Four times a day	2	1.1
Pregnant woman take meal			
	Before all family members	12	6.7
	With all family members	165	91.7
	After all family members	3	1.7
Food taboos among participants			
	Yes	162	90.0
	No	18	10.0

TABLE IV: ASSOCIATION OF BASELINE CHARACTERISTICS IN WOMEN WITH FOOD TABOOS

Food Taboos		p-value
Yes (n=162) n(%)	No (n=18) n(%)	
34(21.0%)	0(0.0%)	0.015
109(67.3%)	18(100.0%)	
19(11.7%)	0(0.0%)	
72(44.4%)	0(0.0%)	<0.001
26(16.0%)	0(0.0%)	
29(17.9%)	0(0.0%)	
35(21.6%)	18(100.0%)	
19(11.7%)	0(0.0%)	<0.001
57(35.2%)	0(0.0%)	
59(36.4%)	0(0.0%)	
27(16.7%)	18(100.0%)	
98(60.5%)	0(0.0%)	<0.001
32(19.8%)	0(0.0%)	
28(17.3%)	0(0.0%)	
4(2.5%)	18(100.0%)	
60(37.0%)	0(0.0%)	<0.001
65(40.1%)	0(0.0%)	
37(22.8%)	18(100.0%)	
58(35.8%)	0(0.0%)	<0.001
94(58.0%)	0(0.0%)	
10(6.2%)	18(100.0%)	

DISCUSSION

This study was aimed to assess food taboos and related misconceptions during pregnancy. These taboos affect the dietary practices of women in pregnancy. (90%) of participants avoided at least one type of food during current pregnancy because of their belief that eating these foods will lead to harmful effects on pregnancy and foetus The prevalence of some kind of foods taboos among pregnant women was (90%) in our study which was higher than a study conducted in Ethopia[15].

This higher prevalence was probably due to low literacy rate among participants and most belongs to rural areas. The common food item avoided in our study was chicken, eggs beef, spices(masala), dates, dry figs, fish were considered as 'hot foods' and participants believed that protein rich foods causes miscarriage, preterm delivery and bleeding. A study conducted in rural Punjab (Pakistan) revealed that women were highly concerned about consuming certain foods during pregnancy. In their study during first two trimesters women consumed more items classified as' cold foods', such as lassi, raw butter, oranges, cucumber and cauliflower, which is in contrast to our study where these foods were avoided because they cause sour throat. In the same study conducted in rural Punjab hot food items such as dry fruits were more often choose during third trimester, which is in contrary to our study were avoided in third trimester because of fear of increased weight gain by foetus leading to difficult delivery and caesarean section[16].

A study conducted in Mozambique also showed in their study that mainly prohibited foods are proteins, hence avoiding protein rich diet could compromise health of pregnant mother and developing children[17]. Certain fruits considered as "cold foods" such as oranges bananas, ice cream cold drinks can lead to sore throat, flu and cough. In one study conducted in West Bengal also shows concept of "cold foods" which has cooling effects on mother's body. Papaya and mangoes were forbidden in a study conducted in India, because it caused abortion[18]. Potato was considered as high calorie diet and can leads to stomach ache and increase weight gain of mother. In a study conducted in Nigeria significant reasons given by ladies with regards to why they stay away from certain food varieties incorporate dread of troublesome delivery because of enormous children following utilization of food varieties ventured to expand the size of baby[19].

In yet another study carried out in South Africa to determine the food taboos and beliefs among pregnant mothers observed that overall 37 % of mothers were found to have one or more than one food practice which was shaped due to their cultural taboos and beliefs. Most common food taboos reported in the study were oranges, orange juice and drinks, potatoes, chicken, fish and wild animals[20]. Contrastingly in our study, the frequencies of food taboos were reported in 90% of the mothers. The reason behind such high incidence is probably due to social and cultural beliefs, being higher in our part of the world. Secondly, different food practices exist in different countries.

Pregnant mothers especially from developing populations are thought to be vulnerable nutritionally, since they seldom get subjected to various degree of stress, among them include those that believe the cultural and traditional food taboos which raise the chances for acquiring negative outcomes of pregnancy such as compromising the health of the foetus [8]. It is vital to understand the food taboos amongst pregnant mothers in our society so that it may aid in designing the appropriate nutritional interventional programs for our community, targeting maternal as well as child malnutrition from the context of cultural point of view[21].

CONCLUSION

According to the results of the study, majority of the pregnant mothers were observed to follow one or more food taboos irrespective of parity, gestational age, monthly income, occupation and educational status. This shows that food beliefs and taboos are still widely practiced in rural areas of Sindh leading to maternal health issues and were significantly associated with gestational age, parity, literacy rate and status as well. Community education and addressing these issues during antenatal visits can overcome this problem.

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AUTHOR CONTRIBUTIONS

Bala M: Conceive idea and data collection
Khoharoo YN: Manuscript writing.
Mehmood M: Proof reading
Asif B: Data analysis

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