

Pattern of Food Cravings in Pregnant Women Receiving Antenatal Care in a Community Setting

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DOI: <https://doi.org/10.3329/jafmc.v19i1.68449>

Abstract

Introduction: Food cravings are a sudden desire to eat certain types of foods during pregnancy. Worldwide, it is a common phenomenon.

Objectives: To find out the pattern of craving foods and examine to what extent the craving desires were fulfilled.

Methods: This cross-sectional study was conducted among 150 pregnant women in a community setting. Data were collected during January to March 2020 by face-to-face interview with a semi-structured questionnaire. Sample women were selected purposively.

Results: Mean age of the sample women was 23.59 (± 4.36) years. 78% (117) of the respondents had cravings for one or more foods. Of them, 29.9% women had craved for sour fruits and 32.5% women had craved for milk-based sweets. Besides, 15.4%, 17.1% and 20.5% women had craved yogurt with misti, rice-milk-banana mixed and pickles respectively. Another 1.7% women had craved for non-food substance burnt clay. 23.9% craving desires was due to inhibiting nausea and 57.3% had no explanation. 70.9% craving desires was fulfilled. The proportion of fulfillment of craving desires was 100% in higher income families ($p < .001$). In joint families, 78.9% craving desires was fulfilled. It was 56.1% in the nuclear family ($p = .009$). In the first pregnancy, 81.5% craving desires was fulfilled ($p = .003$).

Conclusion: Common foods for pregnancy cravings were sweets, sour fruits and pickles. Craving desires was fulfilled more in high income families, joint families and in first pregnancy.

Key words: Food cravings, Pregnant women.

Introduction

Pregnancy is a physiological condition. During pregnancy, a balanced diet is crucial to meet optimal growth and development of the fetus as well as to support the physiological changes in the mother. In pregnancy, women

often make some dietary changes.¹ These dietary changes have been assumed to work in conjunction with cultural strategies in response to adaptation to the challenges posed by pregnancy.² Food cravings in pregnancy is a sudden desire to eat certain types of foods.³

Food cravings in pregnancy are common in both developed and developing countries.⁴ This is a real phenomenon that affects many women in pregnancy. Pregnancy cravings usually arise at the end of the first trimester, peak in the second trimester; thereafter tend to decline in the third trimester.⁵ Food cravings may be caused by physical factors which may be linked to nutrient deficiencies. Cravings focus on foods that provide calories and micronutrients while posing few threats to mothers and fetuses.⁶ Food cravings were said to influence food choices during pregnancy. Sometimes, it was identified as a common barrier to healthy eating.⁷ Cravings to healthy foods are good for health. However, cravings for a lot of sweets or chocolate can cause excessive weight gain and dental caries. Although the occurrence of food cravings during pregnancy is well established, the actual aetiology of food cravings is unknown.⁸ It may be due to inhibiting nausea, supplementing nutrient deficiency, or to get away from monotonous food.⁹ Pregnant women perceived cravings as biologically based and therefore out of their control.¹⁰ The physical and hormonal changes that take place during pregnancy may also play a role in food cravings.¹¹ Particular foods craved are culture-specific and commonly include sour fruits, sweets, dairy products, fish, ice cream, chocolate. Sometimes there is a desire to eat unusual non-food substances. Craving or eating things that are non-food is called pica.^{12,13} Pregnant women may develop cravings to eat a variety of non-food items like burnt clay, chalk, baby powder or soap.¹⁴⁻¹⁹

Food cravings in pregnancy can happen to anyone whether they are pregnant or not, but is more common during pregnancy.²⁰ Harries and Hughes' article on enumeration of cravings of pregnant women was the earliest research article on cravings and it was based on

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991 pregnant women's self-reported information which was found to be widely prevalent.²¹ It's true that many pregnant women have specific or unusual food cravings, but it's perfectly normal not to have any cravings at all.³ Lack of cravings doesn't mean there's anything wrong. The objectives of this study were to find out the pattern of craving foods and examine to what extent the craving desires in pregnancy were fulfilled.

Materials and Methods

This cross-sectional study was conducted in 150 pregnant women residing in the villages of Gonoshasthaya Kendra (GK) project area located in Savar Upazila of Dhaka district. Data were collected by face-to-face interview during the period from January to March 2020. A semi-structured questionnaire was used. The sample women were identified purposively by the GK paramedics who are responsible for providing antenatal and postnatal care. In selecting the sample, attention was paid to diversity in demographic and socioeconomic backgrounds.

Results

This cross-sectional study was conducted among 150 pregnant women. The study revealed the status of food cravings, pattern of craving foods and to what extent it was fulfilled.

Table-I: Socio-demographic characteristics of the respondents (n=150)

Characteristics	n	%
Age in years	15-18	8.0
	19-22	36.0
	23-26	35.3
	27-30	12.0
	31-36	8.7
	Mean±SD = 23.59 (±4.36)	
Education	Illiterate	10.7
	Primary	69.3
	SSC	14.7
	HSC	4.0
	Graduate and above	1.3
Occupation	Homemaker	93.3
	Garment worker	5.3
	Tailoring	1.3
Household monthly income	10,000-25,000	58.7
	26,000-50,000	34.7
	51,000-75,000	6.7
Type of family	Nuclear family	43.3
	Joint family	56.7
Parity	Primi	37.3
	Para 1	46.0
	Para 2	13.3
	Para 3	2.0
	Para 4	1.3

Table-I shows that the mean age of the respondents was 23.59 (±4.36) years, 69.3% had primary level education, 93.3% were homemakers, 58.7% had household monthly income between TK.10,000-25,000, majority of the respondents

(56.7%) came from joint families, 37.3% women had their first pregnancy and 46% had second pregnancy.

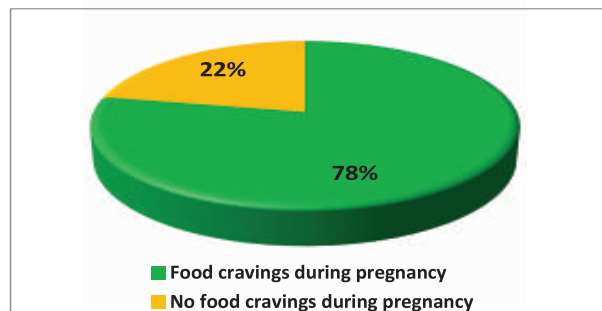


Figure-1: Presence of food cravings during pregnancy (n=150)

Figure-1 shows that 78% of the sample pregnant women had cravings for one or more foods.

Table-II: Why do pregnant women have cravings? (n=117)

Causes of cravings	n	%
Desire for recognition	4	3.4
Nutrient deficiency	6	5.1
To inhibit nausea	28	23.9
To get away monotonous food	12	10.3
No explanation	67	57.3

Table-II shows that 23.9% craving desires were due to inhibit nausea and 57.3% had no explanation.

Table-III: Pattern of craving foods (n=117, multiple response)

Craving foods	n	%
Sour fruits	35	29.9
Misti (milk-based sweets)	38	32.5
Yoghurt	18	15.4
Rice-milk-banana mixed	20	17.1
Pickle	24	20.5
Kajoli fish (small local fish)	7	6.0
Hilsha fish	7	6.0
Polao (special rice dishes) and beef	8	6.8
Beef	11	9.4
Mutton	3	2.6
Jute greens	2	1.7
Loti	3	2.6
Cucumber	5	4.3
Mixed vegetable	3	2.6
Water melon	6	5.1
Burnt clay (pica)	2	1.7

Table-III shows, 29.9% women had craving for sour fruits and another 32.5% women had craving for milk-based sweets.

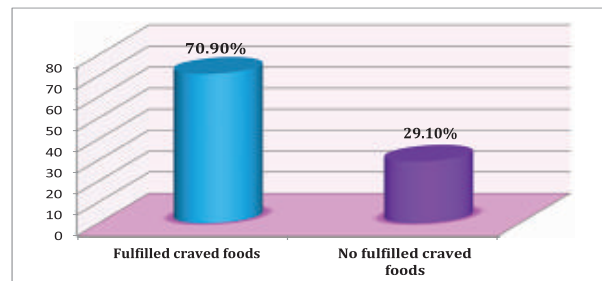


Figure-2: Fulfill of craving foods (n=117)

Table-IV: Fulfillment of craving foods by income, family type, parity and age

Variables		Fulfilled (n,%)	not fulfilled (n,%)	p value
Income	10,000-25,000	35 (53.8)	30 (46.2)	< .001
	26,000-50,000	40 (90.9)	4 (9.1)	
	51,000-75,000	8 (100.0)	0 (0.0)	
Type of family	Nuclear family	23 (56.1)	18 (43.9)	.009
	Joint family	60 (78.9)	16 (21.1)	
Parity	Primi	44 (81.5)	10 (18.5)	.003
	Para 1	37 (67.3)	18 (32.7)	
	Para 2	2 (70.9)	6 (29.1)	
Age	15-22 years	49 (74.2)	17 (25.8)	.245
	23-36 years	34 (66.7)	17 (33.3)	

Table-IV shows that fulfillment of craving desires was significantly associated with family income, type of family and parity of the sample women.

Discussion

This cross-sectional study was undertaken in Savar upazilla of Dhaka district. 150 pregnant women were selected for this study. Food cravings during pregnancy are a very common phenomenon. Majority of the sample women (36%) were between the ages of 19 and 22 years, almost a similar number of women (35.3%) were between the ages of 23 and 26 years. Mean (\pm SD) age was 23.59 (\pm 4.36) years. The overwhelming majority of our sample women (69.3%) had primary level education while 14.7% passed SSC, 4% completed H.S.C. and only 1.3% had a BA degree. Of the respondents, 93.3% were homemakers, 6.3% worked in garment factories and only 1.3% had her tailoring business at home. Majority of the pregnant women (58.7%) had household monthly income between TK. 10,000-25,000. Maximum respondents (56.7%) came from joint families. Among the women, 37.3% had their first pregnancy and 46.0% had their second pregnancy.

The present study reported that 78% of women experienced food cravings. In contrast, 22% had no cravings during pregnancy. Hainutdzinava et al reported that 59% of pregnant women had food craving.²² A study conducted by Forrest et al in New York among 400 well-nourished white women, found 76% had cravings for at least one food.²³ The findings of the present study also co-relate with other reports where food cravings exceeded 60%.^{24,25} In Sudan 93% of women had cravings of different foods.²⁶ In this study, 23.9% craving desires was due to inhibiting nausea and 57.3% had no explanation. Even though the exact aetiology is unknown, a few hypothesis "fluctuating level of hormone", nutritional deficits or cultural and psychosocial factors were mentioned as cause of pregnancy cravings.³

Among the craving foods, a wide range of food items were mentioned. But most frequently mentioned craving

foods were local sweets (32.5%), sour fruits (29.9%), pickles (20.5%), rice-milk-banana mixed (17.1%) and yoghurt (15.4%). A few women talked about having cravings for beef (9.4%), polao (6.8%), hilsha fish (6.0%), kajoli fish (6%), water melon (5.1%), cucumber (4.3%) and mutton (2.6%). Cravings in pregnancy were not limited to foods only. A small number of women (1.7%) in the sample reported cravings in non-food item burnt clay. Walker and associates studied dietary cravings and found that the pregnant women craved different types of food.²⁷ Wijewardene carried out a study on cravings in 1000 randomly selected women and reported having cravings for a wide variety of foods.²⁸ A study conducted in Saudi Arabia reported 26% of women craved meat.²⁹ The variability of food cravings during pregnancy possibly depends on country to country, socioeconomic status of the family and number of children.

The in-depth interactions with the sample pregnant women showed that, majority of pregnancy cravings (70.9%) was always fulfilled. Wijewardene et al reported that 99% of those who had cravings got to eat the craved foods.²⁸ In this study, the association of fulfillment of craving desires with income, family type and parity was found significant. This study revealed that food cravings were mostly fulfilled in higher income families ($P < 0.001$). Wijewardene et al reported higher cravings in families with incomes of less than Rs. 2500 than in families with an income of Rs. 2500 per month but it was fulfilled mostly with higher income in the family.²⁸ Besides, the majority of the women (78.9%) in joint families fulfilled their craving desires. This is also statistically significant ($p = .009$). Farland et al also found significant association between fulfillment of craving foods and joint family.³⁰ Cravings were mostly fulfilled (81.5%) among the women in their first pregnancy ($p = .003$). A similar study conducted by Patil et al also reported a significant relationship of fulfillment of craving foods in first pregnancy.³¹ The association between fulfillment of craving desires and age of the respondents was found non-significant.

Conclusion

Though little is known about food cravings in pregnancy, it is a real phenomenon. Logically, maximum women in this study had craving desires. Common desired foods were milk-based sweets, sour fruits, pickles, yoghurt and rice-milk-banana mixed. Few had a desire to eat non-food substances. The study explored that the majority of the respondents had no explanation for their craving desires. However, most of the craving desires were fulfilled. Statistically, association of fulfillment of craving foods with high income, joint family and first pregnancy was found significant.

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