

Evaluation of the Level of Awareness of Parents During and After Pregnancy in Selected Slum Area of District Varanasi and Ghazipur

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KEYWORDS Parent Education. Pregnancy. Rural Area. Urban Area

ABSTRACT Maximum numbers of deaths take place in India during the birth of a child, therefore, affecting the vital life period in human life cycle. The aim of the present study was to explore awareness of parents during and after pregnancy in selected slum areas of district Varanasi and Ghazipur in terms of diet, safety measures, cooking methods, immunization status, and dietary intake during lactation, alternatives used by mothers in place of mother's milk. Overall more than half of the participants lacked awareness; they still believe in old unscientific tales. Illiteracy appears to be an important factor responsible for this. However, after educating them about the above practices, a significant increase in awareness was noticed.

INTRODUCTION

Every seven minutes one woman dies due to complications in pregnancy or child birth in India. That makes 77,000 deaths every year. This is further compounded by the high percentage of deaths in the run-down maternity services and mother-and-childcare centers and rural health facilities. The current survey also reports that there are 300 maternal deaths per lakh (100,000) live births and what is most worrying is that women in the 20 – 24 age groups constitute one-third of the total deaths. The main causes for a majority of deaths are hemorrhage, puerperal sepsis (infections after delivery), complications of abortion, obstructed labor, and hypertensive disorders associated with pregnancy and lack of education and awareness (Registrar General of India 2006). Most of the women are anemic because they don't take good care of themselves. Inadequate health care and child birth in quick succession are the other issues. Abortions done by *dais* and quacks, which are widely prevalent in India, could also give rise to various infections.

In general, women in the slums remain unaware of their own reproductive health prob-

lems occurring during pregnancy such as excessive bleeding, anaemia, diet care during pregnancy and blood pressure checks etc. Further risk involved in repeated pregnancies and proper utilization of antenatal and postnatal postnatal care is another concern. Hence, it is necessary to impart knowledge about pregnancy related problems and to understand the root cause of generating complications during delivery among such poor women in slums.

Pregnancy is a normal physiological phase where rapid growth takes place in the mother's body. The fetus in mother's uterus grows more rapidly than after birth. The zygote develops into a seven-pound baby within 9 months.

Pregnancy imposes the need for considerable extra calories, care and nutrient requirements. A balanced and adequate diet is therefore, of utmost importance during pregnancy and lactation to meet the increased needs of the mother, and to prevent "nutritional stress" (Park 2007). In various studies it was seen that pregnant women in various parts of the world are forced to abstain from nutritious foods as a part of their traditional food habits (Manderson and Mathews 1981; Trigo et al. 1989)

At the time of birth, the infant is 9 months old. Optimum development of the infant is necessarily a function of parental diet. Inadequate maternal nutrition results in low birth weight of the infant and high depletion of mother's body reserves of nutrients. Premature death, maternal death and low vitality of the infants are due to poor nutritional status of pregnant mothers.

Lactation period has special signification in the life of mother. This period is the duration in

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which mother feeds her baby partially or totally. Infant depends upon mother's milk for his nutritional requirements. This is the time when physiological changes brought up during pregnancy are reversed to normal about woman prior to pregnancy.

Lactation demands great increase in the amount of nutrients. Breast feeding is advantageous to the infant and mother as well. Milk composition of mothers' milk is appropriate to her own child. Thus, milk composition of any two mothers is not alike. The increase in quantity and composition of milk is according to the needs and capacity of the infant. Milk is secreted after 4-5 hours of delivery. In the beginning it is only a few drops. These few drops are the first vaccination of the infant. Therefore, they should be carefully given to the infant. The infant has just begun to learn suckling.

In various studies it was found that pregnant women in various part of India are not aware about their care during and after the pregnancy and other practices. Recently, Mishra and Gupta (2010) reported lack of awareness in parents towards family planning and vaccination practices in selected slum areas of district Varanasi and Ghazipur.

Therefore, in the present study we tried to explore the awareness of parents towards (i) the reproductive health of the women during pregnancy (ii) utilization of antenatal care and (iii) types of food stuff given by them to a child of up to six months in two selected slum areas (Varanasi district) and two rural area (Ghazipur district).

METHODOLOGY

The present study is an exploratory attempt to study the comparison of level of awareness of during and after pregnancy in parents from the urban slum and rural parent or Uttar Pradesh.

Sample: The sample for the study is divided into two groups. Group 1 includes 150 parents from urban area (Durgakund called Bankati of Varanasi) and Group 2 includes 150 parents

from rural area (Riapur village of district Ghazipur) in the age group of 25-35years. Purposive sampling technique was used to select the sample.

Procedure: In order to study the comparison of the level of awareness of during and after pregnancy in parents from the urban slum and rural parents' communities.

Procedure of Data Analysis: The data was collected by personal visits. Interview method was used for the data collection. First of all rapport was established with the subjects and then information was obtained. Both qualitative and quantitative analysis was done. The responses obtained were coded, tabulated and then percentages were drawn and content analysis was done.

RESULTS

Thirty- one percent pregnant women in urban slum and 34 % pregnant women in rural areas had awareness that regular precaution is required during pregnancy (Table 1). Only 39% of pregnant women in urban slum took green vegetables along with pulse, rice, and *chapatti* while 61% preferred only pulse, rice, and *chapatti*, and did not prefer green vegetables. However, in rural areas pregnant women followed the same dietary practices but only 10% had fruit and vegetables in their diet (Table 2). After educating the mothers, there was an improvement in the awareness level about the dietary intake pattern among pregnant women. Marked improvement in the intake of milk, curd and seasonal fruits shows the acceptance of the fact that proper education could improve significant awareness in parent. Thereafter, we focused on steps for safety measures during pregnancy. We found that the mothers from both the selected areas were not aware that they should not lift heavy weight during pregnancy. After imparting education, they became careful towards this action (Table 3).

One of the best way to improve the nutrition is proper way of cooking. Therefore, we also

Table 1: Awareness of respondents regarding the precautions taken during pregnancy

S. No.	Precautions taken during pregnancy	Initial precaution before education			Precaution after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Yes	31.0	34.0	32.5	80.0	85.0	82.5
2	No	69.0	66.0	67.5	20.0	15.0	17.5

Table 2: Awareness for diet in pregnancy

S. No.	Food items	Initial dietary intake before education			Dietary intake after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Green vegetables	39.0	39.0	39.0	40.0	38.0	39.0
2	Pulse, rice, <i>chapatti</i>	61.0	57.0	59.0	25.0	27.0	26.0
3	Milk-curd	-	4.0	2.0	22.0	24.0	23.0
4	Seasonal fruits	-	-	-	10.0	06.0	8.0
5	All of the above	-	-	-	03.0	05.0	04.0

Table 3: Distribution of respondents on the basis of safety measures taken during pregnancy

S. No.	Types of safety measures	Initial safety measures before education			Safety measures after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	To avoid lifting heavy weight	31.0	34.0	32.5	04.0	01.0	2.5
2	To avoid stairs climbing	-	-	-	07.0	02.0	4.5
3	To avoid high heel sandals	-	-	-	09.0	07.0	8.0
4	Empty stomach for a long gap	-	-	-	07.0	04.0	5.5
5	All above	-	-	-	45.0	71.0	58.0

investigated the way of cooking especially during pregnancy (Table 4). Our study showed that a variation in types of food for pregnant women was observed in both the areas. But after educating, mothers accepted that they should avoid the food which may harm the development of child.

For the safe motherhood and child health, a pregnant woman should receive two doses of tetanus toxoid vaccine, adequate amounts of iron and folic acid tablets or syrup to prevent and treat anaemia, and at least three antenatal check-ups that include blood pressure checks and other procedures to detect pregnancy complications. Therefore, we also tested the parent's awareness on vaccination against tetanus in both the study areas. It was found that 38% pregnant women of urban slums were vaccinated against tetanus. However, in rural area this was 43 percent. After giving education, an improved 59% women of urban slum, 69 % in rural area became aware of vaccination (Table 5).

Another important aspect for child nutrition is that a breast-feeding mother must have good dietary intake and should be aware about alternatives for mother's milk. Therefore, we have also taken these two aspects in consideration (Tables 6, 7). About 29 % respondents of urban slum said that if a woman was not able to produce milk, then they gave honey to a newly born child. However, 54 % replied that they gave sugar solutions instead of honey. After educating them, about 70% mothers from urban slum and 69 % mothers from rural area replied that they gave dairy milk and cow milk whereas 22 % respondents gave goat milk in rural area (Table 5). Moreover, 39% lactating women in urban slums took green vegetables while 61.3 % took pulses, rice, and *chapatti* only. No one took milk or curd. However, in rural area 39 % lactating women took green vegetables, pulses, rice and *chapatti*. After educating them, dietary habit of lactating women improved in both the areas as there was a marked improvement in the

Table 4: Awareness about adopting of cooking method during pregnancy

S. No.	Methods of cooking	Initial method of cooking before education			Method of cooking after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Fried	67.0	66.0	66.5	33.0	29.0	29.5
2	Boiled(Cooked in pressure cooker)	7.0	9.0	8.0	15.0	18.0	34.0
3	Shallow frying	13.0	10.0	11.5	29.0	27.0	28.0
4	Any other methods	13.0	15.0	14.0	23.0	26.0	8.5

Table 5: Immunization status of respondents during pregnancy

S. No.	Vaccinated against tetanus	Initial immunization before education			Immunization after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Yes	38.0	43.0	40.5	59.0	69.0	64.0
2	No	62.0	57.0	59.5	41.0	31.0	36.0

Table 6: Awareness of respondents for dietary intake during lactation

S. No.	Food items	Initial food items before education			Food items after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Green vegetable	39.0	39.0	39.0	31.0	19.0	25.0
2	Pulse rice chapati	61.0	49.0	58.0	51.0	41.0	45.0
3	Milk-curd	-	9.0	4.5	13.0	29.0	21.0
4	Fruit	-	-	-	5.0	-	2.5
5	Soth ka ladoo	-	3.0	1.5	-	11.0	5.5

Table 7: Alternatives used by mothers in place of mothers milk

S. No.	Substitute of mother milk	Initial substitute mother milk before education			Substitute of mother milk after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Sugar solution	54.0	46.0	50.0	04.0	-	2.0
2	Honey	29.0	26.0	27.5	11.0	9.0	10.0
3	Dairy milk	17.0	-	8.5	70.0	-	69.5
4	Cow milk	-	19.0	9.5	-	69.0	35.5
5	Goat milk	-	9.0	4.5	-	22.0	11.0
6	Powder milk	-	-	-	15.0	-	7.5

intake of milk, curd and seasonal fruits (Table 7).

As a child grows, it requires other nutrients which cannot be fulfilled by mothers' milk and so a mother should know what should be given to a child in different stages of growth. In this regards we find that there was much variation in case of food stuff given to a child after six months of age in both the selected areas. After educating them, they became cautious of giving

proper diet to their children above six months of age (Table 8).

DISCUSSION

Tables 1 and 2 comprise the data concerning precautions during pregnancy and dietary intake of pregnant women. Before the parent education, mothers of the urban slum mainly depended on green vegetables (39 %) with pulses,

Table 8: Type of food stuff given to children after six months of age

S. No.	Food stuff	Initial food stuff before education			Food stuff after education		
		Urban (N=100)%	Rural (N=100)%	Total number (200)%	Urban (N=100)%	Rural (N=100)%	Total number (200)%
1	Dal ka pani	19.0	21.0	20.0	21.0	27.0	24.0
2	Boiled potato	-	-	-	17.0	3.0	10.0
3	Mother milk	21.0	19.0	20.0	12.0	7.0	9.5
4	Outside milk	45.0	45.0	45.0	18.0	25.0	21.5
5	Alternatively	15.0	15.0	15.0	32.0	38.0	35.0

rice and *chapatti* (61%). There was no use of milk and curd and seasonal fruits which is an important ingredient for nutrition. But after educating the mothers, statistically significant improvement in nutrition except for green vegetable was recorded. On the other hand, the mothers of rural area used to take green vegetables (39 %), pulses, rice and *chapatti* (57 %) and milk curd (4 %) but avoided seasonal fruits. After educating the mothers, significant improvement was noticed in nutritional practices during pregnancy. This highlights that knowledge should also be executed into practice by reinforcement.

After the methods of cooking for the pregnant women were analyzed (Table 4), these showed a lack of right cooking practices in both the selected areas. After educating the mothers, significant change was noticed in rural area, while in urban area no significant change was observed. Such alteration in behavior of mothers in rural areas reflects that they are keen to learn newer practices for their betterment. Such types of tendencies have been also reported from many areas. Sarode (2010) reported that awareness is very much required at every stage of antenatal care particularly for illiterate women with low standards of living category in the slums in order to ensure reproductive health during pregnancy.

Vaccination plays a big role in preventing the child from a variety of diseases so we studied the awareness of mothers towards vaccination. As reflected from Table 5, initial vaccination was very low in both the areas. However, after educating them significant increase was noticed in rural areas as compared to urban slums. This clearly depicts that people of rural areas got more aware as compared to urban slum. This study gets supports from the report of Agrawal et al. (2005) that the level of complete immunization is very low in urban slums.

Human milk represents the ideal food for young infants. It is only natural to focus first on the type of diet a mother needs to consume in order to produce nutritious milk for her baby. Concerns about the adequacy of their diet are an important aspect therefore, we raise this issue also. We find that breast feeding mothers are not aware about their own diet in both the study areas. So we tried to educate them how one can balance their diet and they could improve their health so that they could provide milk

to their child. A significant improvement was noticed after educating the feeding mothers in both the areas (Table 6).

There is no substance that can come close to human milk. But time to time attempts have been made to find some alternative to mothers' milk. But in uneducated slums it has been found to be a most common problem (Sarode 2010). In the present study we noticed a similar type of condition. Keeping in mind this trend, we educated the parents about some alternative like honey, cow milk, goat milk might be an alternative and we noticed that after the parents' education enhanced improvement was noticed in both the study areas (Table 7).

For the proper development of child, it is very necessary that they should get proper nutrition. It was noticed that a mother does not really know what they should give a six-month old child. So to fulfill the lack of knowledge of nutrition, education was given to mothers and it was noticed that they became aware about the proper nutritious diet for their children in both the areas (Table 8).

Similar types of studies were also conducted in various part of India. Banasal et al. (2003) reported that a big project was initiated in 30 villages of Anand and Khed district of Gujarat state to improve the nutritional status in rural areas.

CONCLUSION

This study gives a rural-urban disparity in awareness during and after pregnancy among women in slum areas of Varanasi and Ghazipur. The magnitude of the gap described in this study offers a baseline probability for use in evidence-based research that will assist clinicians, researchers and policymakers in the detection, prevention and treatment of malnutrition among pregnant women of slum areas. These findings also suggest that education for the right practices during and after pregnancy cannot only increase the awareness but also help in the improvement of health of women and child.

ACKNOWLEDGMENTS

Abha Mishra is thankful to Banaras Hindu University for financial support in form of fellowship. We are also thankful to head department of home science MMV, BHU for facilities.

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