Traditional Practices and Nutritional Taboos

Effect on Mothers and Perinatal Outcome

Mrs. ALAMELU V. RAMAN

INDIA is striving to achieve the goal: Health for All by 2000 A.D. Placing health in the hands of the community is our major aim. About 80% of our population lives in the villages and our health care system is trying to place health care package within easy reach of each and every individual. Though there is knowledge expolsion, scientific advancement, technological development in medicine and health care, our people are still holding their belief on traditional practices. No doubt, some of the practices are sound for health but certainly some of them are based on superstition, false belief, customs and traditions that are deterrent to health.

Health is a human right, which every individual of a community has the right to achieve. We have a responsibility to ensure that right to every individual. About 22.5% of our population consists of females in reproductive age group. They are the vulnerable group and a vast majority of this segment of the population is grossly neglected. Human resources play a major role in Indian economy. The role of the mothers who produce the future citizen of the country is vital and their contribution towards upliftment of the economy is tremendous. On one side our agricultural scientists are finding ways and means to increase food production and food resources with modern farming techniques and plant research, and on the other, the benefits of these resources are not able to permeate to this vulnerable group due to the factors specially the socio-cultural factors including prejudices, taboos, beliefs, superstitions related to food and dietary system.

Results of Early Marriage

In our country, most of the girls are married in their teens. They conceive early and during their reproductive period, may produce about 8-10 children. Repeated pregnancy labour and lactation imposes serious effect on the health of the mother which leads to increased rate of maternal mobidity, and mortality, pregnancy wastage and high infant mortality. The babies that are born at the intervals of 15-18 months, have low birth weight and poor nutritional store. Moreover, when such a female child grows up with poor dietary intake it is liable to have impaired growth leading to a short structured and malnourished potential mother. Thus the vicious cirlce is continued generation-to-generation. Further, our rural folk and the less privilaged class do not accept family planning. Amongst other factors is also the economic factor because they believe that if they have more children there will be more hands to work that would contribute towards the family income. If they have female children, they wish for a male child to continue the family name and the mother goes on producing till she begets a male child. This affects the mother and the infant's health.

Many studies have been conducted regarding traditional practices and nutritional taboos among Indian women. A longitudinal perspective field study carried out in Padra town, Baroda,[1] shows that early marriage at the age between 15-19 years resulted in high perinatal and neonatal mortality, increased abortion and premature deaths. High prematurity observed in mothers who attended M.C.H. clinic four or less than four times, who received less in earlier antenatal care and advices. Spacing less than one year raised the incidence of abortion, still birth and prematurity.

We have a five-tier health care system all over the country. Sub-centres and community health centres are trying to cover the total population and provide antenatal services in zones covered by them. One of the biggest stumbling blocks in the way is a taboo prevailing in our community is that the delivery or the birth of a child is an "untouchable" process and is conducted by a traditional birth attendant called "Dai" or a barber woman. These indigenous ladies are neither trained nor have they any systematic knowledge about prenatal care, labour, delivery and lactation.

Godale[2] and others who conducted a study in Solapur observed that as many as 60% of the total deliveries conducted by untrained dais and relatives who applied Kumkum, ash or oil in cord suffered neonatal complications. Another community study[3] conducted in 1984 shows that 70% of the population preferred home delivery by local Dais because she is available before, during and after the delivery and also because of their sympathetic attitude, which the mothers do not normally get in hospitals or primary health centre. It has also been reported that the mothers preferred a smaller baby for an easier delivery.

High incidence of tetanus, puerperal infections, maternal morbidity and mortality, perinatal and neonatal deaths are resulted due to faulty practices like preparation of delivery room floor by giving a coat of cow dung, cutting the cord with unsterilised sickle or instruments like a blade, etc.

Nutritional taboos also impose favourable or

This is the text of a lecture delivered by the author, a Lecturer in College of Nursing, Kanpur, at the Seventh National Congress of Perinatology, 1988, held at P.G.I., Chandigrah.

unfavourable impact on pregnancy and perinatal outcome. Pregnancy demands additional food requirement for the growth of the foetus and the maternal organs. Mothers to be in various parts of India keep fast to be blessed with a male child during pregnancy. That is very harmful. In some states, pregnant women are not given jaggery sugar, almond, cocoanut, groundnut, date palm, fried food, jowar, maize, egg, meat, mango, bajra, etc., because they believe that they are "hot' foods which may cause abortion. The above foods are highly nutritious and the mother is deprived of them.

In the same way, the mothers to be are restricted with certain foods called "cold food" like butter milk curd, kakari green gram dal, green leafy veg. etc. because they can cause joint pain, body-ache and flatulence. Even they believe that black gram and buffalow milk cause colic pain. Andhra Pradesh toddy is believed as a tonic for pregnant lady and she is given 1-1.12 litre toddy per day. Toddy consumption results in Vit. B deficiency, sore tongue and mouth, numbness and tingling of muscles. In some regions, banana is not given which is believed to be cause of convulsions. Buffalow milk is not given because people believe that it causes convulsions as well as the child will be born with low intelligence.

Another study conducted in Pondicherry[4] shows that elders of the family restrict food items like bitter guard, pork, mangoes and egg because they believe that the above food items may cause the body suffer from fits and common cold. In a joint family, the daughter-in-law is allowed to eat when all the elder members have had their meal. Usually, very little is left for her to eat in the end, especially the delicacies, no nutritious dal or vegetable will be available. That causes less intake of vegetable protein, and vitamins.

Colostrum is one of the richest foods for infants, which contains protein, fat and antibodies against infection. But it is believed that it is witch-milk and is a poison for baby and is thrown away. During postnatal period lactating mothers are given only chapati and dal for 40 days. They are not given milk for first six days. A special diet called "Harira" is given which is believed good for mother and the infant.

Nutritional Taboos and its Impact on Pregnancy

1. Poor Weight Gain: Normally during a pregnancy, there is a weight increase by 10-12.5 kg which includes the foetus weight (3 kg), placenta and membrane (0.7 kg), liquor amnii (0.8 kg), accompanied with an increase in weight of uterus (0.9 kg); breasts (0.4 kg), maternal stored protein (0.9); fat (0.3 kg), water content in blood (1.2 kg) and extra cellular fluid (1.2 kg). In order to make way for this weight gain, the expectant mother needs an increased dietary intake alongwith the intake of pre-gravid state. In the case of the mothers, who are already undernourished, the pregnancy, labour and lactation impose an additional stress on her system and exaggerates the nutritional deficiencies. Usually those in the lower income group do not get adequate rest and work till the full terms. This leads to depletion of her reserves leaving practically nothing to meet the additional requirements during the last trimester, labour or puerperium. Studies show that one in every five of such mothers suffers from acute anaemia with HB lesser than even 10% and weight gain averaging 6-8 kg. These under-nourished mothers suffer from diarrhoea, infection, lethargy and oedema. It has also been observed that during pregnancy the average Indian mother takes lesser than the recommended dietary allowance, i.e., less than 2000 and protein less than 40 gm per day.

2. Nutritional Anaemia: Poor intake of protein, iron and Vit. B Complex leads to nutritional anaemia in the form of hypochromic microcytic anaemia, due to folic acid and B_{12} deficiency macrocytic anaemia, and many mothers suffer from dimorphic anaemia due to iron, folic acid and vitamin B_{12} deficiency.

3. Toxaemia: Theobald (1985) regards toxaemia is due to dietetic deficiency specially of protein, calcium, Vit. B Complex, Vit. A, and D, folic acid and B_6.

4. Accidental haemorrhage: Hibbard (1964), Menon *et al* (1966) believe that one of the causes of accidental haemorrhage may be folic acid deficiency.

5. Goitre: Due to poor intake of food in certain places higher than sea level mothers suffer from iodine deficiency which causes goitre.

6. Dental Caries: It is due to flourine deficiency, when the mother's intake is deficient in flourine contents.

Nutritional Taboos and its Effect on Foetus

1. High Rate of Pregnancy Wastage: Maternal malnutrition leads to pregnancy wastage including abortion and still birth. Due to progressively increasing deficiency of protein during pregnancy it increases foetal resorption.

2. Prematurity: It has been observed that inadequate nutrition is more common in the lower income group that leads to high rate of premature labour. (Babies weighing lesser than 2500 gm at birth, called low-birth weight infants or prematures, are smaller in size, red in colour, and a poor subcutaneous fat. Their head is soft and the blood vessels so fragile that they are prone to bleeding tendency. Because of these they are exposed to the danger of haemorrhage during or even after the delivery. The baby becomes hypothermic because its heat regulating centres are not properly developed. Because of the small chest cage with poor surfectant there is breathing difficulty. Feeding such babies is problematic becase of the sluggish sucking and swallowing reflexes. The baby is susceptible to infection with little or no resistance developed towards infection. The absence of the essential enzyme glycuronyl in them causes jaundice. Severe jaundice in the first week may prove fatal. If the baby survives it may leave permanent after effects like paralysis and mental

retardation. Sometimes as a result of low blood sugar, the baby may become restless and develop tremors or convulsions. This too can lead to brain damage.

3. Low Birth Weight: There are evidences of intrauterine growth retardation in the case of maternal under-nutrition. When the baby is born at term, that is smaller for date and may suffer from mental retardation.

4. Foetal Malformation and Deficient Brain Growth: It has been observed that maternal vitamin deficiency, specially folate deficiency, may predispose to neural tube defects and an encephalus in new born. It is also responsible for poor brain growth.

5. Foetal Growth Defect: Maternal malnutrition and anaemia affect the foetal development during the second half of the pregnancy as 2/3rd of the weight gain in foetus takes place only during the second half, and also the placenta will be smaller and lesser liquor amnii. The foetus shows asymmetrical growth retardation, i.e., the head circumference will be larger than abdominal circumference. These babies are prone to develop anaemia during their early childhood that is very serious.

6. Over-Sized Babies: Obased or overfed mothers produce oversized babies, who will suffer from difficulties during their birth.

7. Congenital Renal Anomalies: Some studies have shown shat obased mothers with hypervitaminasis A produced children who may suffer from congenital renal anomalies.

8. Less Concentration of Protein in Breast Milk: Nursing mothers who do not get proper nourishing diet during the postnatal period have lesser than required protein concentration in their breast milk. Because of the deficient concentration of protein, the baby so nursed may suffer from protein deficiency leading to impaired growth if not properly supplemented. It has been observed that an average Indian woman takes 1800 C with 40 gm. of protein during postnatal period as against the requirement of 2900 C with 60 gm of proteins.

Role of Professional Health Workers

Every health worker is essentially a teacher. In their role as a change agent and a health advocate, they shoulder a great responsibility in taking care of the pregnant women and their neonates. Those engaged in MCH care should adopt a skilful and systematic approach and have a sympathetic attitude. Every endeavour should be made to get familiarised with the traditional practices followed by the community, analyse and evaluate their ultimate effect on the health. Periodic counselling and guidance regarding antenatal care and hygiene and the essentiality for registration in hospitals, periodic medical checkup, nourishing diet, preparation for labour and delivery by trained health professionals should be stressed for the welfare of the mother and foetus.

Traditions and customs like habits die hard. The health professionals must be able to educate people to shed away false beliefs and taboos. This aspect should get over-riding priority because they lead to progressive deterioration of the health. The personnel engaged in MCM care should at the time of registration of expectant mothers, classify cases in "low-risk", "at-risk" and "high risk" groups and remedial steps could be taken in time.

The individual, family and community must be helped to realise that the well being of the neonate depends to a considerable extent on the diet of the mother during pregnancy and lactation. Breast feeding imposes extra demands on the nursing mother and her intake of proteins, fat, minerals and vitamins has to be accordingly increased. The fact that to enable the nursing mother to meet the requirements of the suckling baby for proper growth and development, the mother must have square meals to her fill.

Knowledge of cultural pattern of a community is of great help to the MCH workers in leading to know underlying factors in relation to the disease pattern of a community. Secondly, it gives an understanding into community's values, knowledge, attitudes and skill to health and diseases. Thirdly, it gives a clue as to how to get the community involved in planning, implementing MCH programme with effective community participation and cooperation to obtain a positive result.

As a change agent, every health worker has a responsibility to investigate the possible, relevant socio-cultural methods and practices by simple surveys, observations and through questionnaires. After the survey in a particular group has been completed and the relevant data colated, they are required to make an unbiased unprejudiced analysis of the effects deemed to be directly related to the traditional practices and dietary patterns with reference to the pregnancy and perinatal outcome. Categorisation of such of these which are harmful, or even those which are associated with any element of uncertainty although completes the study but the aim is not achieved if the results cannot be implemented or brought out very clearly before the community in question.

The ICMR has suggested (1968) for a pregnant woman 20% of more calories (that is 300 calories) than that of pre-gravid state to be added during later months of pregnancy with additional 10 gm of protein. In the same way for nursing mothers 700 calories with addition of 20 gm of protein to be added to that of pre-pregnant state. Carbohydrate and fat should be enough to make up the calories. Iron, calcium, minerals and vitamins intake are to be increased. Indian Medical Council recommended the daily nutrients for 50 kg weight of an Indian woman 1968 as follows :

When an expectant mother visits the clinic for antenatal checkup, she should be advised and induced to do so periodically, special care should be taken to verify if the habits, customs or practices identified as harmful to her or the offspring as recorded in her case history at the time of registration have since been discontinued. A regular follow-up

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Nutritional Taboos

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	Second Half of Pregnancy	*Lactation*
Calories	2500	2900
Protein gm	60	70
Fat gm	50	50
Carbohydrate gm	460	550
Calcium gm	1	1
Iron mgm	40	30
Vitamin A	4000 I.U.	4000 I.U.
Vitamin B_1 mg.	1-2	1-2
Folic acid	150-300 g	150-300 g
Vitamin B_{12}	1.5 g	-do-
Vitamin C mg	50	-do-
Vitamin D	200	-do-

is also essential.

The health professionals must have the capacity and ability to demonstrate leadership in mobilising the community resources and community participation in bringing out behavioural changes in diet and food habits, in shedding off harmful practices, beliefs and superstitions and taboos and adoption, clean and hygienic living, balanced diet based on needs as stipulated and backed by scientific data, conducting deliveries by trained dais or health personnel postnatal care of the mother and child by education counselling and inducing them to hold group discussions. The other topics of significance to the health and well being of the community like importance of sanitation, environment, immunization, breast feeding introduction of contraceptives for spacing and limitation of family size, etc. should also be taken up and dealt with as a routine.

Proper training of medical and health personnel runs as a corrolary. A introduction of these topics in the curricula for medical nursing and para medical therefore becomes imperative of course with the due stress.

Social Service by PGI Nurses

The faculty and students of College of Nursing, P.G.I., Chandigarh, recognised the drastic effects of the natural calamity of drought in the country and raised a sum of Rs. 18,397.20 towards Prime Minister's Drought Relief fund through a Raffle. The draw was held on 30th January, 1988 in the College of Nursing soon after a talk on 'Social Welfare—Whose Responsibility' by Mr. Onkar Chandji of the Servants of the People Society of Chandigarh.

The students also held a two-day variety entertainment programme in aid of Poor Patients' Welfare Fund of P.G.I. on 10th & 11th March, 1988 and raised a sum of Rs. 24,000/- towards this cause. The proceeds of these two social welfare activities will be soon turned over to appropriate quarters concerned by the student representatives.

Activities of such nature are planned along with the Nursing curriculum activities to inculcate a sense of responsibility for the welfare of humanity.

Unclaimed Journals

It has been brought to our notice that some members are not collecting their *Journals* from the places where they are working. These members are requested to inform TNAI Headquarters office if they are not interested in receiving the *Journal*, so that we can stop sending their copies of the journal, thus averting considerable waste of resources.

Editor