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Towards Safe Motherhood in Sri Lanka: Knowledge, Attitudes and Practices During the Period of Maternity

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Introduction

The knowledge road to health has many pitfalls -and women in less developed countries and particularly those who are poor, illiterate and unemployed, face crucial tradeoffs when they attempt to fulfil their biological, social and other needs. However, maternal health has been recognized in almost all developing countries to be of great importance since the satisfaction of the basic needs of children at every phase of their life is closely linked to the well-being of the mother; the dependence being greatest during pregnancy, and continuous during infancy. [1]Therefore, a variety of communication channels such as the newspaper, radio, television and health personnel in developing countries are devoted to improving the mother's knowledge, attitudes and practice of maternal health. However, many mothers still experience conflicts putting new knowledge into action due to the practical and external difficulties prevailing in each area, such as inadequacy of facilities and illiteracy.

In less developed areas, success in over-coming the barriers of attitudes, knowledge and practice depends largely on improvements in the quality of the existing health care system. In this context, the primary health care approach recommended by the Alma Ata conference is seen as a means for less developed countries to bring ' health without wealth' to the people.[2]. Thus, during the last decade, many developing countries have been able to put new knowledge into action among vulnerable groups by improving education and health services, and employing community health workers and other organizations. Since maternal health and, to a great extent, the health status of the new-born depend on the mother's knowledge, attitudes and practice of various health measures during the maternity, the present study was formulated to examine some aspects of awareness, attitudes and practices among women in Sri-Lanka during pregnancy, childbirth and post delivery.

Sample and methodology

The study was undertaken in six Public Health Midwife (PHM) areas in the division of the Beruwala Medical Officer of Health (MOH) in the Kalutara district of Sri Lanka. The total population of the Beruwala MOH area was estimated to be 136,000 in 1994, and areas selected for the present study comprised 9,764 persons. After examining the registers of pregnant women in each selected PHN's area, ten women with a pregnancy duration of seven months were selected randomly from each area and fol1owed-up subsequently.

The study thus planned was to follow-up sixty women through pregnancy, delivery and the postpartum period. The restriction to six weeks (42 days) after delivery implied the definition of postpartum period has been criticized on the grounds that several pregnancy-related problems could last beyond the six-week postpartum period. [3]Therefore, the study was extended to the end the third month postpartum, and thereby, some information relating to the infant was also gathered. Thus, information on maternal health was gathered in sequence: first, at the seventh month of the pregnancy; second at the sixth week after the delivery; and finally at the end of the third month following delivery. However, the study was restricted to the data pertaining to the first and second round surveys only. By the time of the second round, two women were missed (unable to be traced due to internal migration) from the original sample of 60 women, and another case was also dropped because she had had a still birth.

The study was qualitative and more explanatory in focus, and gathered information by using 'how,' and 'why' type questions. 'How' and "why' questions are posed when the investigator has little control over events, and the focus is on a contemporary phenomenon within the real life event.

Most households in the study area did not enjoy permanent source of income since the men were employed as casual laborers, carpenters, masons, traders and shareholders of the gem industry. There were only a few permanent workers in the area, whose families enjoyed a somewhat higher living standard than others.

Results and Discussion

Reducing mortality and increasing the overall health status of the people has been one of the social targets of the Sri Lankan government since independence. The largest decline in the death rate took place during 1946-47 with the successful malaria campaign. The life expectancy at birth has been increasing since then reaching 70 years for males and 74 years for females by 1991, and indicating higher longevity among females than among males. This increase in life expectancy could be plausibly identified with the reduction of mortality

during infancy and the childbearing ages. The high maternal mortality of 16.1 per thousand live births in 1940 due to complications during delivery has significantly declined, reaching a level of 0.5 per thousand live births by 1981, and thereby eliminating one of the major factors contributing to the country's mortality rate.

As in any part of the country, in this MOH area too, at the time of the survey, the health services were in direct contact with individual members of the household in three well defined service areas: mother and child care, environmental sanitation and illness care. Maternal and child care covers a wide range of domiciliary and clinic services related to pregnancy; childbirth; family planning; immunization; and infant, pre-school and school health. These services are provided through the public sector by the Public Health Midwife (PHM), Public Health Nurse (PHN), and Medical Officer of Health (MOH). The maternal and child health clinics of the Ministry of Health were about six kilometers from any direction of the selected PHM areas.

Most patients who visit the MCH clinic have to stay at least one hour on average for treatment but the duration of stay can be extended beyond this period depending on the number of clients to be served. The clinic offers pregnancy check-up including urine and blood examination, weighing of children under five years of age, supplementary feeding program, and the supply of iron and vitamin tablets. Immunization of children with BCG, DPT and measles vaccines, and of mothers with tetanus toxoid, and advice on supplementary feeding and family planning are among the other activities of the MCH staff. Since there is no medical doctor at the MCH clinic, clients who require special examination and treatment are sent either to the Dharga Town Peripheral Unit, Beruwala Hospital, or the Nagoda General Hospital, depending on the severity of the case.

Beliefs and practices during pregnancy

The overwhelming majority of the pregnant women believed that the consumption of certain foods during pregnancy might cause certain illnesses, and sometimes, even physical defects in the yet unborn child. Many said that raw pineapple, gahala and kukulala (two kinds of yams), balaya and kelawalla (two kinds of blood fish), parboiled rice and beef were largely avoided during pregnancy because they are said to produce excess heat in the body, and thereby cause early abortion. Though the women knew the word 'abortion', they did not use it, but just said the consumption of heaty foods would adversely affect the foetus.

As in many other developing countries, Sri Lankans also believe in a 'hot' and 'cold' classification of foods. The origin of this concept comes from the Ayurvedic

medical system, which has been established in Sri Lanka since many years. The Sri Lankans seek a balance of 'hot' and 'cold' foods in their diet to avoid health disturbances. The respondents had thus refrained from foods said to be 'hot' because they generated excess heat in the body rather than 'cold' foods, which cause ill health. They preferred food and drink which are supposed to keep the body cool such as milk, but still avoided it when they had flu or cough, because milk is believed to produce mucus/phelgm.

The food choices of pregnant women in Sri Lanka are influenced to some extent by symbolic ideas. [4, 5] Vegetables red in color such as red sweet potatoes, beet root, red thampala, red nivithi (two kinds of red leafy vegetables) etc., are avoided throughout pregnancy to prevent 'Rathagaya' which literally means red skin rash which appears during the first few days of infancy, but sometimes can extend even up to one month after delivery. Some of the better educated women in our sample did not believe in the relationship between the consumption of red-colored vegetables and the occurrence of 'rathagaya ' nevertheless they did not want to risk their child's life and therefore placed greater emphasis on the selection of the foods consumed by them. The women were also concerned about other health problems in the unborn child and particularly believed that if a pregnant women eats mimini meat, pork, or porcupine meat the child would get eczema or asthma. These beliefs were found to be commonly held by the women in the study area.

The mothers were mostly concerned about the pregnancy outcome that is, about having a very small baby because then the infant would be very weak and malnutrition would result. There was a strong belief that balanced food intake produces 'a small but healthy child'. This led them to ensure that they had a balanced diet. However, the main constraint in having sufficient nutritious food such as meat, fish, eggs etc., was their low household income.

Pregnancy is considered as a special event after marriage and therefore the pregnant women is treated with much attention. Members of the household, irrespective of their economic status, try to supply food and meet her other requirements. The relatives and friends make much of her, giving her tasty food and instructions for a safe pregnancy though, there are constraints on sour foods such as tamarind and mango. In almost all cases in the present study, the husband was reported to take care to give her whatever food she specifically demanded. Thus, this period seems to be the only period in which a woman may make demands regarding her food. However, as observed most South Asian countries, in Sri Lanka too, among the poor the diet does not improve much during pregnancy or lactation and is clearly inadequate. [6, 7]

The biggest problem during pregnancy is that of malnutrition and though the women receive special care, a significantly large percentage of mothers deliver low birth weight infants.[8,9] The clinical records of the study areas showed that about 23 per cent of new-born infants were underweight at the time of birth (less than 2.5 kg.). In-depth interviews revealed that neither illiteracy nor traditional customs and practices contributed to the lower nutritional status, but it was the poor economic status, which was inadequate to fulfil the minimum low requirements of the women.

Anemia among pregnant and lactating mothers is found to be over 60 per cent in Sri Lanka, and the clinical data of the study area was no different from the national estimate. Apart from its detrimental effects on maternal health and birth capacity, anemia is closely associated with low birth weight. The usual medical explanation is that low birth weight babies are the result of the poor nutritional status of the woman during pregnancy.

Many mothers know that they ought to eat vegetables, fruits, milk and king coconut during pregnancy, but whether they can do so or not depends on their household income. Midwives constantly encourage pregnant women to consume leafy vegetables because they are readily available in their locality. The respondents were able to state many reasons for having to consume these additional foods - to build up blood and to gain energy which could help an easy delivery, growth of the foetus and diet must be sufficient for two persons. However, nuclear families with both parents working have brought marked changes in dietary patterns in Sri Lanka. Housewives resort to easy-to-prepare, convenient foods, and snacks are getting more popular and are eaten by many people throughout the day; and though adequate in calories, they contain little vitamins and minerals.

During pregnancy some foods believed to augment breast milk production were also consumed by the women: kiri kos (jack fruit curry) and kiri moru (baby shark) were the most popular ones under the 'kiri' category. The prefix "kiri' refers to those food varieties assumed to be beneficial for nursing mothers. Thriposha was the only food, which was added newly to the diet. The MCH clinics provide two packets of 'thriposha' program, a supplementary feeding program of the government, which caters to the needs of children and lactating and pregnant women who are at risk. It is a food supplement formulated to reduce the incidence of energy-protein malnutrition, nutritional anemia and xerophthalmia. Pregnant women consume 'thriposha' with sugar and rasped coconut about three spoons per day, though some avoid it as they find it unpalatable. Most believe that 'thriposha' is good for building the woman's strength and for the growth of the baby, as also for rebuilding the worn-out tissues of the mother and giving her energy. Supplementary feeding programs

are the most common forms of nutrition intervention in developing countries. [10-12]. Despite the relative popularity of such programs in Sri Lanka, the results have been disappointing. [13]

During the antenatal period, certain activities are permitted while others are proscribed depending on the advantages and disadvantages presumed to affect pregnancy outcome. Most of the permitted activities are believed to provide moral support during pregnancy while the forbidden ones are mainly ascribed to the supernatural. Pregnant women sometimes do not believe in the relationship between the natural forces and pregnancy outcome, but they are convinced by elderly females such as the mother, mother-in-law or neighbor. Thus, even without knowing exactly why, they follow these customs for fear of facing a difficult delivery. For instance, pregnant women avoid sewing of stuffed pillowcases; striking nails and tightening knots in the belief that by doing so the child will be struck. Even the midwives do not change their ways, which are based on the fear of the supernatural. This may be due to the fact that these practices indirectly lead to mental satisfaction and thereby a healthy pregnancy and its outcome. For instance, avoiding devil, dancing houses would give moral support to the pregnant woman.

As stated by the women, during pregnancy a woman should be happy and not get angry. Reading newspapers and books, sewing and listening to the radio was considered relaxing. The elders advised them not to sleep during the day because the child would grow bigger and this could lead to a difficult delivery. Women in the study area normally worked hard to meet the economic needs of the family; however only fewer than ten per cent worked in the secondary and tertiary sectors. During pregnancy, however, they were greatly eased and took up less laborious work, but continued to work almost till the time of delivery.

It is widely accepted that hard physical labor during pregnancy could have a negative effect on pregnancy weight gain, the women's health and the birth weight of the infant. The women who were interviewed were conscious that heavy physical work had an adverse effect on the foetus and restrained themselves from such activities as fetching water, chopping firewood, lifting heavy objects and carrying heavy loads. Heavy work was commonly restricted in this community until the fourth month of pregnancy and again after the eighth month of pregnancy since the probability of having an abortion during the former period, and a still birth during the latter period is high. The midwives also recommended them not to engage in these activities which could result in tiredness, fatigue, and/or strain in the calves and have a deleterious effect on the foetus. However, some elders believed that hard physical work such as pounding paddy and flour lead to an easier delivery, though such activities were not recommended before the fourth and after the eighth month of gestation.

However the women could not ignore their daily household work, and in addition to minor household activities, they sometimes had to fetch water, chop firewood and even work hard in their kitchen garden to obtain an additional income to meet their economic needs.

As in many parts of the world in Sri Lanka too, multiple births are not desired primarily because rearing including breastfeeding more than one child of the same age is difficult. When the respondents were asked, "Are there any foods, which should be avoided or preferred during pregnancy to avoid multiple births?" not a single mother, said that she preferred or avoided certain foods with a view to avoiding multiple births. It was expected that a large proportion of the mothers would say that they avoided eating split bananas or vegetables in order to avoid twins. This belief was widespread in Sri Lanka, India, as well as in many South American countries until the recent past. [14]

The study also showed that the couples continued to have intercourse as frequently as desired, even after the conception was confirmed. This is because they believed that the child born would be very small, slim and feeble if intercourse is rare during pregnancy. Unlike in most developing countries, Sri Lankan women, because of the higher level of literacy, keep a fairly accurate count of the gestation period. In fact, the count is used to predict the sex of the child; if they find that the gestation period is more than nine months and extends to the tenth month, a male child is predicted.

The practice of taking the pregnant woman to her mother's house for delivery, which was the custom in Sri Lanka, has greatly diminished with modernization. However, it is still fairly common in the case of the first birth. What was found to be more common in the study area was that when the pregnant woman approaches the date of her confinement her mother or some close female relative comes and stays with her for a few weeks until she delivers the child, and is able to manage the routine household activities by herself.

Childbirth practices

Childbirth is a normal physiological process, which can become pathological due to the adoption of certain practices and consequently affect the health and survival of the newborn. [15]Good antenatal and postnatal care and trained assistance at the time of delivery are thus very important to ensure child survival.

The pregnant women followed-up in this study were delivered in an institution by a trained midwife or doctor; none of the deliveries took place at home. It should be noted that, on average, about 85 percent of the total registered births in

Sri Lanka occur in government medical institutions [16], while only 33 per cent of all births in India are attended by trained birth attendants or medical personnel Grant.[17]. The clear impact of the common practice of delivering at a medical institution is lowering of the maternal mortality rate in Sri Lanka to a low level of 0.5 maternal deaths per thousand live births. As mentioned earlier, there are two government hospitals in the Beruwala MOH area in which women usually go for delivery. Complicated cases are directed to the Nagoda General Hospital, which is located about 15 km-away from the study area.

Some women, in fact, claimed to have discussed the place of delivery with their elders, though the entire decision depended on them, and was influenced by their previous experiences. Attendance at antenatal clinics, visiting family doctors or even obstetric consultants were mostly done alone by the women. When she fell sick or developed symptoms of confinement, she did not wait for her husband, but accompanied by one of her relatives or neighbours, went to the hospital immediately.

The length of hospitalization is very short in the absence of complications. Most of the women in our sample were discharged on the first or second day of hospitalization. The women themselves did not prefer to stay in the hospital much longer due to the lack of good services. They also did not like the environment of government hospitals. Only one well-to-do woman in the study sample reported to have delivered her child at a private maternity hospital in Colombo, which is situated about 45km. away from the study area.

Breastfeeding practices

Breastfeeding has many benefits for the infant was well as for the mother. Some of its advantages for the infant are that breast milk is nutritionally ideal, provides immunity against many infections, is sterile, and is quickly and easily digested, and is always readily available to the baby. [18] The benefits to the mother are that it strengthens the emotional bonding between the mother and the baby, and delays the return of ovulation thus facilitating child spacing.

Breastfeeding was universal in the study area, and the mothers intended to breastfeed their infants for more than one year or sometimes even longer. Approximately 97 per cent of the mothers were breastfeeding their babies at the end of the postpartum period (six weeks after delivery). Even though all the mothers preferred to breastfeed their infants as long as they needed to, there was a tendency to discontinue the practice early due to 'no milk' which is undoubtedly the result of malnutrition. However, the frequency and period of breastfeeding also reduced when the mothers started to work.

It is a common belief in the area that mothers should prepare for breastfeeding during pregnancy by taking foods which are believed to produce more breast milk such as bitter gourd, milk, fish, meat, eggs, etc. The importance of breast milk for the health of the infant was highly accepted by the mothers because it contains vitamins and other nutrients required for the growth of the child. The midwives advised them not to consume curries with too much chilly because that can adversely affect the production of breast milk. When they started nursing, the mothers did not have any idea about how often the child should be fed, and by and large breastfed their infants on demand. Sex preference with regard to breastfeeding was not observed in the study area, though the mothers indicated that male children demanded more breast milk than female children did.

The practice of discarding the colostrum was quite high in the study area; about 22 per cent of the mothers did not breastfeed colostrum to their children. In some instances the elders advised them to throw this 'dirty' milk out, though, by and large mothers themselves believe that the milk is 'dirty' to feed their children with. Nevertheless, some mothers did give it to their children, as they knew it to be good for them. In maternity wards, the ward staff assisted the mothers to initiate breastfeeding and advised them to feed colostrum to their babies. These mothers were also requested by the ward staff to seek the advice of the area PHM on breastfeeding practices and to contact the area PHM for postnatal care.

Taboos on sexual intercourse were observed by many women during the first three months after the delivery. They were aware that if they had sex, it could lead to another pregnancy and ultimately to a reduction in the production of breast milk. This awareness helped in maintaining a sufficient interval between two successive pregnancies, and indeed facilitated the healthy growth of the child and safeguarded the health of the mother. During this period in which such a taboo was observed, the wife and husband lived under the same roof, but slept separately.

Conclusion

Social welfare measures in the form of maternal and child welfare services, expansion of education, provision of safe drinking water, more sanitary methods of sewage disposal, and improvement of nutrition levels due to economic expansion based an export economy have all led to a decline in Sri Lanka's mortality, particularly infants and mothers. The various pregnancy related taboos and cultural practices observed in the study area had a significant impact upon the health of the mother and child. The prenatal and postnatal practices and taboos had both adverse and benefice effects. Better-educated pregnant

mothers did not believe that certain food items were bad for the foetus, but did not want to risk their children's health by consuming such foods.

Low birth weight and anaemia among pregnant and lactating mothers have been identified as the most crucial problems in the study area. In Sri Lanka, immaturity or 'small-for-date' is the most important cause of infant mortality. Many countries have recognized the problems related to the high incidence of low birth weight babies and have adopted remedial measures to gradually overcome them. In India the incidence of low birth weight babies is as high as 30 per cent, and is proposed to be brought down to 10 per cent by the year 2000.[19]. SriLanka has also targeted a reduction in low birth weight babies to 18 percent by the turn of the century Ministry[16], and has geared up the special food supplementation programs for pregnant mothers. It is an appropriate time to think beyond antenatal care and introduce better social and welfare programs to enhance the physical and mental health of mothers. In preparation for such programs, health planners and health workers of Sri Lanka should not only take note of the sociocultural practices of pregnant mothers but also of prospective pregnant women.

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