

REPORTS

Beliefs and Practices Regarding Delivery and Postpartum Maternal Morbidity in Rural Bangladesh

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Most maternal deaths occur in the puerperium and most maternal morbidities probably also arise at that time. Maternal morbidities occur much more frequently than maternal deaths, but very little is known about their magnitude or causes. This study uses focus-group discussions to explore the experiences of childbirth and postpartum illness among rural Bangladeshi women. The women's beliefs about disease causation, and their use of traditional health care, are explored. The significance of the findings for the training of traditional birth attendants and for programs of postpartum care is discussed. (STUDIES IN FAMILY PLANNING 1995; 26, 1: 22-32)

Bangladesh has one of the highest maternal mortality ratios in the world, about 600 deaths per 100,000 live births (UNICEF, 1993). It is one of the few countries where life expectancy at birth for females is shorter than that for males (UNICEF, 1993). Although many female deaths occur in childhood, the life expectancy of females at age fifteen is still shorter than that of males, with the excess deaths due solely to pregnancy-related causes (Fauveau et al., 1989). The main medical causes of these deaths (septic abortion, hemorrhage, eclampsia, obstructed labor, and infection) have been documented in several studies; the majority occur in the postpartum period (Alauddin, 1986; Fauveau et al., 1988; Chen et al., 1974).

Much less is known about the magnitude and causes of serious morbidity related to pregnancy than is known about maternal deaths. A small study in India in 1980

estimated that there are 16.5 episodes of serious illness related to pregnancy and childbirth for every maternal death (Datta et al., 1980). However, more recent estimates suggest that the number of acute morbidities related to childbirth may be much higher, as many as 67 episodes for every maternal death in a country such as Bangladesh (Koblinsky et al., 1993). Although conditions such as pelvic sepsis, vesicovaginal fistulae, and prolapse may not result in death, they may have serious social and physical consequences for women.

As most maternal deaths are believed to occur during the puerperium, so are most maternal morbidities likely to arise at that time, linked to events occurring during delivery (Fauveau et al., 1988). Whereas sepsis and hemorrhage are the most frequent causes of maternal death in the puerperium, however, the pattern may well be different for morbidities. It is not known how great a role delivery practices play in the etiology of maternal morbidities; other risk factors for postpartum morbidities in rural communities of developing countries are also largely unknown.

For Bangladesh, few published data exist on postpartum morbidity, on women's experience of illness during the puerperium, or on the local beliefs and customs relating to it. Most of the literature focuses on the delivery itself. For example, several anthropological studies have emphasized the importance of traditional beliefs surrounding childbirth (Blanchet, 1984; Maloney et al., 1981; Aziz and Maloney, 1985). Other researchers have used a variety of qualitative and quantitative techniques

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to investigate delivery practices that may be potentially harmful to the health of either mothers or infants (Bhatia, 1981; Amin and Khan, 1989; Khan, 1981).

In countries such as Bangladesh, where most deliveries occur at home, maternal and child health programs often focus on the training of traditional birth attendants (TBAs), with the aim of changing and improving delivery practices. One of the objectives of TBA training, in addition to improving neonatal outcomes, is to prevent the major causes of maternal mortality and morbidity. Evaluations have suggested, however, that TBA training may not be as effective in preventing maternal deaths as had been hoped (Greenwood et al., 1990; Jordan, 1989), but the role of TBA training in preventing maternal morbidity has never been adequately evaluated.

In December 1991, the Research and Evaluation Division of the Bangladesh Rural Advancement Committee (BRAC), in collaboration with the London School of Hygiene and Tropical Medicine (LSHTM), undertook a prospective study of postpartum morbidity and its relation to delivery practices. The study was carried out in three unions (administrative units of about 15,000 people) of a rural district in central Bangladesh, where BRAC undertakes demographic surveillance. BRAC maintains a residential base for its field-workers in each of these three unions. When completed in June 1993, the main study had covered more than 1,500 women. The principal objectives of the study were to determine the nature and incidence of illness during the puerperium and to define the risk factors for morbidity, including events occurring during delivery. The study was also designed to investigate a number of methodological issues in this relatively new field, including the consistency between self-reported morbidities and physical examinations.

As part of the preparation for the main study, focus-group discussions (FGDs) were held during August 1991 to obtain in-depth information about local beliefs and practices during pregnancy and delivery, and morbidity and customs during the puerperium. The information gained from the FGDs was used to guide the main study design and questionnaire development and to develop a vocabulary of local terms.

Methods

In recent years, interest has grown in the use of qualitative rapid assessment techniques as a health research tool in developing countries, where fielding large surveys may be difficult, expensive, and lengthy (Folch-Lyon and Trost, 1981; Schearer, 1981; Khan et al., 1991). Focus-group discussions are a technique that can pro-

vide considerable insight into the problems of a community in a rapid manner. Although the validity of the data obtained from FGDs is sometimes questioned when the technique is used as the only research tool, focus groups can provide invaluable background information for the preparation of quantitative studies. They have also been found to be particularly helpful for research into sensitive subjects; recently, several studies have used this technique to explore aspects of maternal mortality (Maternal Mortality Network, 1992; Adetoro et al., 1991). BRAC members have had considerable experience conducting focus-group discussions, and their familiarity with the technique made formal training unnecessary, although practice sessions were held. The topics to be covered by the FGDs were devised by a small group of researchers from BRAC and LSHTM, with advice from an anthropologist who had extensive experience in Bangladesh. Before the questions to be asked were finalized, they were discussed with three groups of female BRAC health workers working in the study area to test the acceptability of the questions and to discern the likely form of the responses. The actual discussions were facilitated by an experienced female BRAC research field-worker who had been living in the study area. She was given the questions to be used in the FGDs in advance and was asked to translate them into the commonly spoken rural dialect of Bangla.

In order to obtain a comprehensive picture of experiences and opinions within the community, mothers of all ages, as well as TBAs, were included in the focus groups. The researchers felt that mothers would talk more freely of their experiences of delivery if they were in separate groups from the TBAs, and, similarly, the young mothers would feel less inhibited if separated from the older women. Thus, three types of group were devised, composed of: (1) young, less experienced mothers—women aged 25 years or younger who had had one to three births only; (2) older, more experienced mothers—women older than 25 years who had had four or more births; and (3) TBAs, both trained and untrained. All of the trained TBAs had undergone BRAC's own TBA training, which is similar to that used in the government program.

Participants for the groups were chosen by BRAC field-workers who resided at the field sites. Although the selection was not randomized, participants were selected to be broadly representative of the community in terms of their religion, educational level, and socioeconomic status. Field-workers were particularly careful to include women from the poorest sections of the community. Women from the richest houses were not invited to participate because the researchers felt that their presence might intimidate the others. Although partic-

pants were not closely related to each other or from the same *bari* (family compound), many were acquainted with each other, which was unavoidable in such small communities.

Each group had between eight and 10 participants. Sessions lasted a maximum of two hours, and participants were offered refreshments during the session. Discussions were held inside a relatively private room in the BRAC compound. Men, older children, and onlookers of either sex were not allowed to be present during the discussions. (If more than 10 participants arrived, as was usually the case, they were given refreshments in another room and another BRAC worker discussed topics of general interest with them.) The facilitator introduced each topic or question for general discussion and then probed as was necessary. Discussions were not allowed to wander off into unrelated areas. The facilitator tried to ensure that all participants were given the opportunity to speak and that the discussion was not dominated by the most vocal women.

Written records were kept by a female BRAC researcher who did not participate in the discussions. The entire discussion was also tape recorded, and these recordings were subsequently used to check the written transcript. Although participants were informed that the proceedings were being taped, they did not appear to be inhibited once the session had "warmed up." A total of nine focus-group discussions were held with a total of about 90 women, one group of each type in each of the three unions of the study area. The three main topics of discussion that were introduced during the sessions can be seen in Figure 1.

Results

Beliefs about the Causes and Prevention of Disease

The participants expressed three overlapping categories of ideas about disease causation in pregnancy, childbirth, and the puerperium. Disease at these times is considered to be mainly due to (1) attack by evil spirits; (2) the kinds of food that are eaten; or (3) physical causes. Whereas the concepts of prevention and treatment of illness reflect these ideas, their content and the balance between them changes as pregnancy progresses to the delivery and thence to the puerperium. Many problems during delivery and the puerperium are linked to events that occurred during pregnancy, and many of the prescriptions during pregnancy are intended to ward off later untoward events.

Precautions against Evil Spirits

Intervention by evil spirits (*bhut* or *uprivhab*) was put forward by members of all groups as the most common

reason for problems during pregnancy and after delivery. The researchers had anticipated that evil spirits would be mentioned in the discussions, as these beliefs had been described previously (Blanchet, 1984; Malone et al., 1981), but the eagerness with which group members discussed them was not expected. Many of the precautions prescribed for pregnant women are an attempt to avoid the actions of spirits. Both the TBAs and the mothers believed in the importance of these proscriptions, although one of the TBAs mentioned that nowadays, younger mothers often ignore their elders' advice about correct behavior during pregnancy, and, consequently, they experience more problems. Overall the researchers' impression was that younger mothers were anxious to take all possible precautions to avoid evil spirits, while older mothers were more skeptical of their effect. Indeed, two of the older mothers differed completely from the general view, remarking that there were too many restrictions, that it is not possible to follow them all, and that taking precautions makes no difference anyway.

Most of the precautions against spirits involve avoiding activities considered likely to attract their attention. These activities include going outside at night or in the afternoon, or going out with one's hair down or with the end of one's sari trailing on the ground. One Hindu older mother told us that pregnant mothers should not eat in the evening or on a moonless night, because doing so upsets Rahu (a Hindu god). Other activities that attract spirits include going outside during storms or

Figure 1 Main topics covered during focus-group discussions, Bangladesh, 1991

Beliefs about disease causation and prevention during pregnancy and the puerperium

- Practices
- Food restrictions
- Restrictions on activities
- Health-care seeking

Delivery practices and experiences of childbirth

- Place of delivery and birth attendant
- Conduct of normal labor and delivery
- Prolonged labor and other problems during labor
- Delivery of placenta
- Immediate postpartum hemorrhage

Postpartum health problems

- Abnormal discharge
- Perineal tears
- Prolapse and fistulae
- Eclampsia
- Tetanus
- Breast problems

ter cooking with oil, because spirits are said to be attracted by the smell of oil.

Discussions revealed the widely held belief that abortions and congenital abnormalities are caused by possession by evil spirits. One TBA described how one pregnant mother had gone out in the evening to pick fruit and had a miscarriage as a result. One woman who had experienced an intrauterine fetal death described how she had been walking through a bamboo grove when she was touched by an evil spirit that caused her abdomen to harden and the baby to stop growing. A *kobiraj* (traditional healer) had been called in and told the woman to drink *pani pora* (water he had blown over after saying a prayer). He had said a prayer and waved a broom over her. Soon after that, the woman had gone into labor and delivered a macerated baby, which was considered to be a positive sign of possession by an evil spirit. The treatments offered by traditional healers reflect a belief in the spiritual causation of disease and usually involve songs, prayers, amulets, *pani pora*, and restrictions on movement or food.

The period after delivery is thought to be one of particular vulnerability to spirits, which is reflected in the practice of seclusion. Other precautions taken during this period include putting pieces of iron around the room, putting leather near the bed, and purifying the feet of anyone entering the room. Muslim women often carry a piece of iron around with them for between seven and 40 days after delivery as a precaution. The protective power of iron is a common idea in Bangladesh and North India and has been described elsewhere (Bhatia, 1981; Karon et al., 1983).

The strength and universality of the belief in supernatural causation contrast markedly with the medical model of childbirth propounded by the government health services, including the TBA training program. The training that some of the TBA participants had received did not appear to have altered their belief system in any significant way. While this means that TBAs remain an integral part of the community in which they provide services, it also calls into question the assumption, common in many rural health programs, that TBAs can act as a force for change in health-related behaviors.

Food Restrictions

Food taboos are common during both pregnancy and the puerperium in India and Bangladesh (Rizvi, 1976; Katona-Apte, 1977). Although specific prescribed and proscribed foods differ considerably from region to region, one item of general agreement is that "hot" foods should be avoided during pregnancy and encouraged in the early postpartum period (Khan, 1981; Thompson, 1983; Rea, 1981).

The focus-group participants linked a number of food taboos during pregnancy to the origins of a specific condition; for example, pineapples were said to cause abortion, and coconuts were believed to make a baby blind, a condition described as "white eye." Another belief was that ducks' eggs may cause asthma in the baby. Other restricted foods mentioned were milk, *hilsha* (a popular river fish), other fish, and cucumber.

The participants noted that after childbirth, Hindu women are not allowed to eat any meat or fish for one month, while Muslim women are restricted from doing so for seven days only. Other forbidden foods after childbirth are bananas with seeds, eggs, and leafy vegetables, especially pumpkin leaves. Beef and *hilsha* fish are thought to dry up the milk of a lactating mother and may also cause *shutika* (postpartum diarrhea). During the period of seclusion, women may be restricted to one rice meal a day, though they are permitted to eat other cereals and milk during the rest of the day. A ground-up mixture of cumin, chili, and garlic (a "hot" food) is commonly eaten in the immediate postpartum period because it is thought to help heal the birth passage. Some mothers said they had not been allowed to take any food for the first few days, only water. Many women said that their water intake had also been restricted at this time.

Although food taboos are often implicated as contributing to poor nutrition among rural women, many of the foods to be avoided, beef, for example, are not, in fact, part of the commonly available diet. Many of the food taboos involve substituting one food for another or do not last for long periods of time. In fact, it is questionable whether food taboos during the postpartum period have as great an impact on nutrition as do endemic food shortages, coupled with the nutritional demands of lactation.

Restrictions on Physical Activity

Falls during pregnancy were commonly mentioned as a cause of such problems as premature labor and miscarriage. Heavy lifting and using the *dheki* (rice husking machine) were also identified as activities to be avoided. Sex was another activity that all group members attempted to avoid during pregnancy. Avoided during the first and last trimester, sex was blamed for causing miscarriages and malformations. However, the TBAs stated, amid some laughter, that it was difficult to keep men away.

Resumption of sexual relations is only considered proper after 40 days postpartum. To have sexual intercourse before that time is believed to cause a foul-smelling discharge. After delivery, it is also considered inadvisable to do heavy lifting or to work on the *dheki*. The activities are thought to be a direct cause of conditions

such as prolapse, rather than being attributed to the intervention of evil spirits.

It was clear from the discussions that even though women had definite ideas about which physical activities should ideally be avoided after childbirth, they had very little control over their participation in these activities. If the rice had to be husked, they had to work the dhecki; if their husbands desired sexual intercourse, they had to submit. Should a health worker have advised rest, women would have been unable to follow her instructions.

Antenatal Care

Most TBA training programs in Bangladesh have an antenatal care component. TBAs are expected to identify pregnant women in their community, examine them, give them advice, and follow them up. A majority of the trained TBAs in the focus groups stated that they follow up a pregnant woman from the second or third-month of pregnancy. They do not usually seek out pregnant women at this stage of pregnancy, but come upon them by chance in the community. The TBAs said that they give advice about nutrition, work, and tetanus immunization; and they check for anemia, edema, and the position of the baby. Some TBAs claimed that they could detect twins, breech presentations, and transverse lie. When complications arise, they said that they send the mother to a doctor. However, most of the TBAs said that if a pregnant woman is healthy, she does not need to go for antenatal checkups. Only a few said that pregnant women should go for antenatal checkups every month from the fifth month of pregnancy on.

In contrast, the groups of mothers said they did not normally seek help from TBAs until labor started. The concept of antenatal care during a normal pregnancy was not familiar to them. They usually only sought care during pregnancy if they felt unwell or thought they had a problem, in which case they usually went to a kobiraj or fakir. Some of the women had been immunized against tetanus as part of the Expanded Program of Immunization, but one woman mentioned that a pregnant acquaintance had experienced an intrauterine death as a result of a tetanus injection. However, others believed that a tetanus injection is good for pregnant mothers and their babies.

Clearly, a wide gulf still exists between the content of TBA training and the actual practices of TBAs even after training, and between the expectations and knowledge of mothers.

Delivery Practices and Experiences of Childbirth

Place of Delivery and Birth Attendant

All the participants agreed that TBAs make the best birth attendants. Nonetheless, untrained relatives oversee

many deliveries. None of the women wanted to go to the hospital for a delivery, and they all said they would consider doing so only if desperately ill. The TBAs told us initially that they send all women with problems to the hospital, but discussion with them revealed that they almost always try to deal with the problem themselves and look upon the hospital as a last resort. For their part, the mothers affirmed that the TBAs never send them to the hospital "until they are nearly dead." The discussions highlighted the discrepancy between what the TBAs had been taught to do and what they actually did. This gap may have been partly due to the TBAs' professional pride and determination. More realistically, it may also have had much to do with fears about the poor quality of hospital services and the difficulties of transport and finance involved.

Conduct of Normal and Abnormal Labor and Delivery

In Bangladesh, the usual position women adopt during the first stage of labor is upright or on all fours. If labor is prolonged, the mother may be encouraged to walk about or she may have her abdomen massaged with oil. If labor still does not progress, more drastic action is taken by the birth attendant. Tying a tight band around the abdomen above the uterus, which is believed to prevent the baby from rising up again into the abdomen, or even standing on the abdomen, are two such actions. Sometimes TBAs massage the cervix with oil or put coconut oil inside the vagina and manually stretch it, a practice that has been described elsewhere (Bhatia, 1981).

Although accounts exist of TBAs purposely rupturing membranes (Bhatia, 1981; Ghosh, 1968), no TBAs in this study reported doing so. Indeed, the TBAs said they worry that if the membranes rupture before the end of the second stage, the vagina will be too dry. This belief leads them to pour coconut oil into the vagina in an attempt to lubricate it. Many of the TBAs reported attempting internal manipulation for conditions such as transverse lie and footling breeches. Some said they washed their hands first.

Women in the second stage of labor are usually told to assume a squatting position. Although some of the TBAs mentioned they had been taught that lying down was the best position for women to assume, none had ever instructed a patient to do so. Some TBAs said that perineal tears could be prevented by applying pressure to the perineum during delivery.

Although some of the practices described are potentially harmful, massage of the vagina and cervix, for example, it was apparent that the TBAs in general were seen as supportive participants in childbirth and that many of their interventions were expected and welcomed. It is interesting to note that their adherence to

traditional behaviors had prevented them from trying to persuade women to lie down during labor (which many women find intensifies the pain), despite their having been trained to do so.

Delivery of the Placenta

All focus-group members exhibited great anxiety during discussion about the delivery of the placenta. The anxiety was due to a belief, also documented in other studies (Mita et al., 1988), that if the placenta does not come out immediately after birth, it can rise inside the abdomen and choke the mother. Because of this belief, the cord is usually cut only after the placenta is completely out. If there is a delay of more than a few minutes, the birth attendant pulls on the cord and simultaneously pushes the mother's hair or a finger down the mother's throat to induce vomiting. Some TBAs said they attempt manual removal of the placenta, while others perform abdominal massage or use fundal pressure. Although trained TBAs have been taught to cut the cord before placental delivery so that the baby can be put to the breast, they are often afraid to do so. Some get around the problem by tying the cut end of the cord around the mother's thigh. Occasionally, birth attendants tie a heavy object to the end of the cord. Similar practices for placental delivery are described in other Asian studies (Ghosh, 1968; Bhatia, 1981).

These descriptions of placental delivery again highlight the belief systems of TBAs that are not changed by training and make clear that, where possible, TBAs may make attempts to incorporate what they have learned in their training course into the traditional model.

Immediate Postpartum Hemorrhage

Ruhini is a local term for postpartum hemorrhage, but few focus-group participants had an appreciation of the danger of this condition. Ideas about how much bleeding was too much were vague. In the words of some participants, "sometimes blood passes like a waterfall" or the bleeding "is as much as fills a water jar." One woman commented that excess bleeding after childbirth is not actually bad because it relieves uterine cramps. Although some of the TBAs knew that a retained piece of placenta could cause hemorrhaging, risk factors such as the age of the mother, multiparity, or previous postpartum hemorrhage were not mentioned. Similarly, drinking hot water and putting hot water containers on the abdomen were the suggested treatments for the condition; uterine massage and the use of oxytocics were not mentioned.

In contrast to the findings on delivery of the placenta, the findings about postpartum hemorrhage seem to indicate a lack of knowledge rather than an inability

to incorporate new ideas into traditional beliefs. A reasonable conclusion is that trained TBAs had not been taught about what specific actions to take in cases of hemorrhage.

Postpartum Health Problems

The Implications of Seclusion

The formal period of seclusion (*choti*) starts at delivery. However, during the discussions it became apparent that the restrictions on a woman's mobility begin during pregnancy. Although part of the reason for limiting activity at that time is fear of evil spirits, for Muslim women these restrictions are bound up with notions of *purdah*; consequently, extra shame is attached to a woman's being mobile during pregnancy. Feelings of shame may be intensified by the responses of men, which typically include laughter and ribald comments. Thus, pregnant women sometimes wear a *burka* (a long-sleeved coat, sometimes with a veil) when going out of their bars, whereas they would not normally wear one.

Women go into seclusion in the period immediately after birth for two reasons: First, because they are considered to be particularly vulnerable to the attentions of evil spirits at that time (Blanchet, 1984), and second, because they are considered impure. Consequently, seclusion provides protection for both women and men who might become polluted by contact with them. Separation from men is ensured by the feelings of shame that a woman experiences at this time. These feelings begin during pregnancy but are intensified during and after delivery. Belief in pollution is particularly strong among Hindus, who observe seclusion for 30 to 40 days; Muslims observe it for only seven days. Group members noted that Hindus usually build a separate temporary hut (*choti ghor*) for delivery and seclusion, while Muslims commonly use a kitchen or the room where the *dheki* is kept. Restrictions on food intake and activities are particularly rigorous during the period of seclusion. New mothers are not allowed to do normal housework and their movements are restricted during their stay in the *choti ghor*. Some of the mothers said that such restrictions are not always followed, especially by poorer women; only the women who are better off can afford to follow them strictly.

All of the limitations on mobility, whether due to fear or shame, clearly reflect the lack of autonomy of rural Bangladeshi women and have important implications for their access to medical services—whether for routine care or in case of illness. The restrictions are most stringent during and after childbirth, at the time when women may most need access to medical care.

Bleeding and Discharge

The reported normal duration of discharge after childbirth ranged widely from seven days to two months, which may have reflected individual physiological differences because the women were speaking from their own experience. The passage of blood is considered beneficial in that it is believed to cleanse the birth passage and relieve cramps, especially if clots are passed.

The participants had no real concept of infection as such, or of the causes of infection. Fever was frequently mentioned as a symptom, but invariably so in conjunction with other symptoms. Excess smelly white discharge, known as *koshar dosh*, was identified as a common problem after childbirth. The unpleasant smell was attributed to eating fish, and a mash of chilis, garlic, and cumin was considered to be a good treatment for it. In other cases, foul discharge was attributed to evil spirits; in such cases, a *kobiraj* was called.

Because women believe that abnormal discharge is due to supernatural influences or the intake of certain foods, it is unlikely that they would actively seek treatment with antibiotics or consider consulting a formally trained health worker for this condition. As a result, postpartum infections are unlikely to be treated adequately in this community.

Perineal Tears

All the participants mentioned that tears are common during first childbirth. Although a small tear was not considered a serious problem because it heals by itself, a larger tear was recognized as problematic. Some TBAs stated that they cleaned small tears with commercial antiseptic, but others said they did nothing. Home remedies were used for medium tears. For example, a piece of cloth with cumin seeds is made into a ball, heated, and put on the tear. Some TBAs mentioned that the tears heal gradually by filling up (granulation), which indicates that they did observe them after delivery. Some participants stated that larger tears require stitches given at the hospital.

Both the mothers and the TBAs described how sometimes the two "ways" (the vagina and the rectum) become "one way," which indicates a third-degree tear necessitating stitches. One mother recounted the story of a friend who had suffered this kind of a tear and had gone to the hospital to have it stitched up. The friend was unable to have any more children. Two case histories of perineal tear as a cause of death were described. An older mother told the group about a friend whose perineal tear had become infected, smelled, and attracted flies. This friend became very sick and later died. Another older mother described another woman with an infected perineal tear who became pale, edematous, and

later developed tetanus and died.

As in the discussion about postpartum discharge few participants knew that an infected perineal tear could be successfully treated with antibiotics or that perineal cleansing could prevent or treat such infections. On the other hand, many of the participants knew something about obstetric fistulae, which were not considered to be common and were sometimes confused with stress incontinence. That the participants were aware of obstetric fistulae indicates that the problem—now extremely rare in developed countries—occurs relatively frequently in this community.

Prolapse

Some of the participants stated that they had seen cases of prolapse where the uterus slips down when a woman sits in a squatting position. They said that the prolapsed part looks like an egg, is sometimes ulcerated with bleeding points on it, and discharge is often present. Some young mothers said that they had not heard much about the problem because older women do not speak about it. One woman described a case with breech presentation where a TBA applied unusual pressure over the abdomen and a prolapse occurred. One TBA described a woman she knew who carried a heavy water jar during her puerperium, which resulted in a uterine prolapse. The TBA treated the woman by placing big arum leaves on her uterus. The TBA then made a ring with cloth for the woman to sit on.

Some participants described how to prevent prolapse. After delivery, when a woman stays in the *chot ghor*, she should have her legs closed together, otherwise air will go inside the opened and raw uterus and may cause prolapse. If heavy weight-lifting during the puerperium is avoided, prolapse can be prevented. The women in this study did not mention the use of vaginal pessaries to control prolapse, though these are commonly available in the towns.

Eclampsia and Tetanus

Not surprisingly, the participants were not able to differentiate between the spasms caused by tetanus and the convulsions due to eclampsia, but these conditions were known to them and were identified as serious problems. Although many of the discussants had heard about tetanus, no one spontaneously mentioned that it could be prevented by vaccination. No sense was indicated of there being a connection between edema and the development of eclampsia. Many of the participants had known women who had died from these conditions, but they believed the conditions were caused by evil spirits.

Because these serious conditions are believed to have wholly supernatural causes, attempts by the medical profession to introduce services to prevent them are

not likely to be well understood and may be perceived as ineffective or irrelevant.

Breast Problems

Breast problems appeared to be quite common, and the participants had a whole range of remedies to deal with them. Some said that the best remedy for pain, heaviness, and excess milk secretion (breast engorgement)—locally called *shajor asha* or *dudh bara*—is to express the excess milk before allowing the baby to feed on the breast. Others said that the baby should feed as much as it can, and then the rest of the milk should be squeezed out. Sometimes a medicinal poultice is obtained from the kobiraj and put on the breast. Occasionally a jute string obtained from the kobiraj is tied around the breast. Other recommendations included taking a hot bath or eating hot rice mixed with garlic and cumin mashed together as a paste.

The participants described how breast abscesses (*gote* or *fora*) become very painful and produce pus. To remedy this type of breast problem, an herbal plant with salt may be rubbed on the breast. Other remedies described were the use of *dal* (lentils) ground with a spice roller and put on the breast, and placing a poultice made of river mud on the affected area. If a fakir (traditional healer) is called in, he waves a broom over the breast and expresses the pus. Mothers usually continue to feed the baby on the healthy breast until the pain and pus are gone, but one woman told us that her milk became smelly and her baby did not like it. She was told that the baby would get an upset stomach if it drank the milk, so she fed it cow's milk.

In general, the remedies used for breast problems were practical in nature. That breastfeeding usually continues despite the existence of abscesses demonstrates that local customs may be beneficial and are worth identifying and promoting.

Postnatal Chronic Diarrhea

Although diarrhea is not a conventionally recognized complication of the puerperium, several women described it as a condition that rural people link to delivery. It is considered to be a serious disorder and is often thought to be caused by spirits (Blanchet, 1984; Rea, 1981). The group participants had a lot to say about *shutika* (postnatal chronic diarrhea) and, in fact, the word can connote an abdominal problem without diarrhea.

The participants described two types of *shutika*, dry and wet. The signs and symptoms of dry *shutika* are indigestion with abdominal pain, loud bowel sounds, weakness, and loss of weight. In wet *shutika*, diarrhea accompanies these signs and symptoms.

Many things can cause *shutika*, including lifting heavy weights, eating leafy vegetables, working on the

dheki, or having sex within 40 days after delivery.

The prevention of *shutika* reflects the spiritual nature of its causation. During the period of *choti*, iron rods are stuck at four corners outside the *choti ghor*, and cow dung (which is of special significance in Hindu communities) is distributed around the *choti ghor*.

The participants described a number of treatments for *shutika*, which are normally prescribed by the kobiraj. One treatment is for the woman to tie herbal medicine to the hip, use a special amulet, and avoid eating for two days. Other treatments involved special exercise, such as swimming or hanging from a tree. In one elaborate treatment, the kobiraj puts jute in a new pot, sets fire to it, and turns it over onto a plate of water. When the heat from the pot sucks up the water, the *shutika* is healed. In another treatment, the kobiraj stretches a measuring string from the umbilicus to each side of the abdomen to determine which side is affected. The kobiraj massages the affected side (the one where the string is longer) with oil, stroking outward then inward; he also does so with the arm on the same side. The bowel sounds fade gradually.

The multiple symptomatology and treatment modalities associated with *shutika* indicate that it is probably not a single clinical entity, but a general descriptive term for the symptoms of a whole variety of pathologies. Further investigation of the meaning and nature of *shutika* is, probably justified, because scant published data exist on this condition that can be used to help health workers respond appropriately when confronted with the complaint.

Discussion

One of the important findings of this study is that postpartum ill health is probably common in this community. Most illnesses are well recognized, with breast problems, perineal problems, infections, and prolapse being the most commonly described. A wide range of treatments is available locally, but knowledge of, say, antibiotics in the treatment of infection is rare. An apparent need exists, which is currently unmet, for basic postpartum health care to be made available to village women.

Another finding is the existence of a tenacious belief in the supernatural causation of disease; many of the locally available remedies reflect these beliefs. Although this study did not investigate local government services, the model of disease causation and treatment used by health workers is typically strictly medical in nature. Knowledge of the beliefs of local women must be incorporated in the training of health-care providers if the

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