

BIRTH, which is perennial as the grass, is different today from the time of our great grandmothers. Earlier, pregnancy was considered to be a natural state of being. Doctors did not interfere with it. Birth happened mostly at home in the presence of elderly, experienced women of the house or neighbourhood. Often, when labour pains began, a *dai* (traditional birth attendant) was summoned, and she remained with the labouring woman until birth.

What did the *dai* do? She encouraged the mother to walk or squat. She usually massaged the mother's abdomen and thighs and sometimes gave herbs to speed up the delivery. As one *dai* told me, "*Mai us wakt bahut pyar karti hoon.*" (At that time I give a lot of love) A lot of stroking and touching is resorted to. She believed that holding a woman on her lower back and her lower abdomen felt really good to the labouring woman. The area where she placed her palm on the back was directly over the sacroiliac joints, the two joints in the lower back that form the back part of the bony pelvic basin, and spread apart during labour. By placing her hand there, she provides support to the bones and muscles which are put under tension during the labour pains. The area where she placed a palm on the lower abdomen was directly over the uterus which would be contracting in an effort to expel the baby.

What if the baby is not positioned head down? I asked the *dai*, thinking, here was a no-win situation that would require referral to an obstetrician. Immediately she demonstrated to me how she would make a woman lie on her side, steady her with her feet, and manoeuvre her in a rocking fashion, to correct the transverse lie!

She further informed me that if "*Baccha gum ho to...*" (if the baby is

not responding at birth), she could put the placenta, still attached to the umbilical cord, in hot water — or make the baby smell an onion. According to our driver's wife, when her son was born, she had labour pains on and off for three days. The *dai* made her squat on bricks, and when she was tired, stroked her back.

The daughter of the woman who comes in to wash the dishes broke her water bag prematurely. The *dai* who attended to her did not do a thing for two days. At the end of that time she had a short labour and delivered the baby.

The two above instances could have easily landed up as caesarean

sections in a hospital setting. In the first instance, a prolonged labour would have been speeded up by an induction, or drugs. If the uterus had failed to dilate within a given time frame, in spite of being nudged and pushed by drugs, it would have been a caesarean birth. In the second instance, after the water bag had burst, immediately or some hours later, an induction of a glucose drip with synthetic hormone would have been set up to begin labour. If the woman did not deliver within 24 hours, a caesarean would have been performed.

Often birth is time bound in hospitals, in accordance with each obstetrician's concept of what a long labour is. Drips and drugs are given so as to make a woman fit into this time table. In a hospital, the same person is hardly present right through the birth. In one labour a woman may have different nurses attend to her as their duties rotate after 12 hours. In many large Indian hospitals, a woman is not allowed to have an attendant from home with her in the labour room, which can be quite disconcerting. In a hospital, repeated vaginal examinations may be given, a practice that is both unpleasant to the mother and runs the risk of introducing infection. The *dai*, on the other hand, generally causes infection due to lack of proper hygiene, such as using unsterilised instruments to cut the umbilical cord.

Handling Childbirth

A Common-sense Approach

Nutan Pandit



Traditionally, mother's milk has been greatly valued as a source of strength. In fact, when goons fight in Hindi films, they often throw a challenge to the opponent by saying, "Jis mai ke lal ne ma ka doodh piya hai, wo samne aye." (If you have had mother's milk, I dare you to come forward and fight me.) However, beliefs regarding the benefits of colostrum, the protein-rich fluid present in the breast before milk comes in, are variant. Some *dais* deprive the baby of colostrum, which is a shame, for it is full of immunities. If fed to the baby, it gives the baby strength to fight infection, for it passes some of the mother's immunoglobulins on to the baby. It also has several other advantages, such as promoting the growth of the baby's nervous system through its high cholesterol content. A mother's milk can take up to ten days to come if the baby is given the bottle instead of the breast. The best way to encourage the body's production of milk is to breast-feed more often.

There is much to be learned from the *dai's* methods. The practice of making a woman in labour walk or squat, for instance, is excellent. In a hospital a woman in labour is made to lie down. Lying on the back compresses the vena cava (a major blood vessel that carries blood to and from the heart), between the mother's backbone and the uterus. The combined weight of the uterus, full term baby, placenta and amniotic water bears down on this blood vessel, thus reducing the free flow of blood in it. Instead of having the woman lie down, the traditional *dais* would encourage a woman to walk in labour, a position that would immediately lift the weight off this major blood vessel. As a result, blood would flow freely and both mother and baby would be less likely to suffer from lack of oxygen in the blood. Hence there is less likelihood



Courtesy: Sunday Observer

of distress to both the mother and the baby.

Walking is also excellent because when walking, the three joints in the female pelvic structure move — the two sacro-iliac joints and the symphysis pubis. These are the same joints that spread apart at birth to make room for the baby's exit. When a woman is walking or squatting in labour, the tail bone moves out of the way as the baby's head negotiates the pelvic outlet. This causes an increase in space available in the pelvic outlet, thus making the baby's exit easier.

It must also be taken into account that the baby has weight of its own, roughly six pounds or three kilos for a average Indian full-term baby. An upright position takes full advantage of the principle of the force of gravity, which pulls the baby downward with a

force provided to it by the virtue of its own weight. This downward descent of the baby puts pressure on the mouth of the womb, encouraging it to open up. Moreover, this downward descent makes it much easier for the baby to slide down the vagina. Whereas if the mother were lying down, it would have been an uphill climb for the baby, for, when a woman is lying down, her vagina is at an upward slant, towards the front of her body. Therefore, if a mother lies down, the uterus has to work harder by shrinking more forcefully on the baby to nudge it up the vagina.

When a mother lies down and delivers in a hospital, she has to strain and push hard to expel the baby. To aid the mother, many doctors cut the muscles of the perineum (the area between the vagina and the anus) as they stretch to deliver the baby. As opposed to this practice, the traditional *dai* makes the mother squat to deliver and allows her to respond spontaneously to the desire to bear down. The squatting position is a naturally expulsive position, the baby slips down with gravity and the

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perineum is not always traumatised as a result. One could compare it to passing a stool lying down, as opposed to passing a stool in an upright position; the former would require more effort.

In a hospital setting, the mother is made to lie down on her back and her feet are put up in the air, supported by stirrups. If the stirrups are swung to the head end of the delivery table, a mother can use them as supports to squat on the delivery table so that she may deliver with more ease, within the setting that her doctor is used to functioning in.

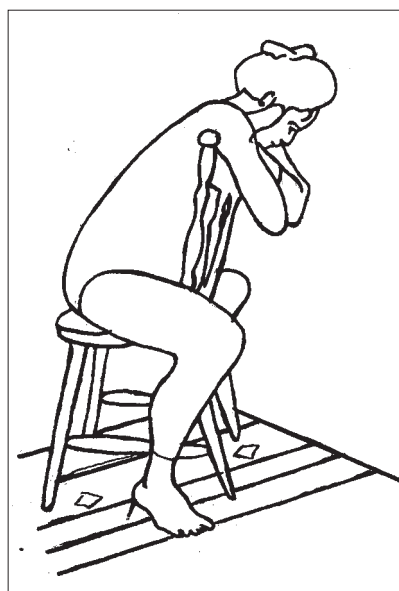
There is only one exception to this preferred upright position for labour. If the water bag bursts and the baby's head is not yet engaged (descended into the pelvic inlet), than a mother should lie down rather than remain upright. The danger in this situation is that the umbilical cord could flow down with the released water and end up getting trapped between the baby's head and the pelvic bone when the baby's head engages. This could result in cutting off oxygen to the baby, so it is best not to take any risks in this circumstance. It is clearly apparent when the baby's head engages because the woman's shape changes, with a greater bulge at the lower part of the abdomen. However, if the head has not yet engaged and the water bag is still intact, being upright is best because it will encourage the baby's head to engage and descend.

During birth a number of hormones come into play in a woman's body, facilitating birth. The endorphin hormone, which starts circulating in the mother's body during pregnancy, and increases during labour, is a natural painkiller that gives the woman a sense of well being. The presence of this hormone makes a woman forgetful

and withdrawn, gives her a positive feeling, keeps her awake, makes concentration difficult, and gives her vivid dreams. Women vary in the amounts of endorphins that circulate in their body. Stress can reduce the production of endorphins.

In labour, when endorphins are released in a greater amount, it can sometimes result in a painless labour. In order to allow optimum endorphin release in labour, a woman must be made to feel safe, comfortable, relaxed, and at ease. The lights should be kept dim. Bright lights, the questioning of a mother by the staff, a wall clock staring at her from across the room, the smell of a hospital, and stress, are all factors that can interfere with the release of endorphins.

The familiar atmosphere of the home and the support and encouragement provided by the elderly women and/or the *dai* are more conducive to endorphin release as compared to the atmosphere created in the medical environment of a hospital. No wonder the World Health Organisation (WHO) recommendations for childbirth says:



“The well-being of the new mother must be ensured through free access of a chosen member of her family during birth and throughout the post-natal period. In addition, the health team must provide emotional support.”

Harmful Interference

Some hospitals have high-tech equipment like the fetal monitor, a machine that measures the baby's heartbeat. The use of this machine requires the mother to lie down on her back with a strap across her abdomen. Interestingly, recent research indicates that positioning a woman on her back while using the fetal monitor actually causes the problem it sets out to identify. Lying down interferes with the free flow of blood through the vena cava and actually causes fetal distress or abnormal heart rhythms of the baby.

Most interference is done with the plea that it is best for the baby, and parents often are subdued when a threat to the baby's life is bandied. Admittedly, the goal of all concerned is the delivery of a normal, healthy baby. In the interest of this, doctors try to make sure that no unnecessary medication is taken by a pregnant woman. But what happens when a woman begins labour? We have pethidine, calmpose, fortwin, and a whole array of grand medical interferences. Are these necessary for the baby's survival? What happens if we do not use these things? Are drugs suddenly good for the baby? Have we stopped losing babies?

Women should feel empowered to have confidence in their own bodies. They should be assertive and make decisions about their choices in childbirth. We must build a consumer need which insists on the birth experience as per a woman's choice. Beyond a point, medical interference

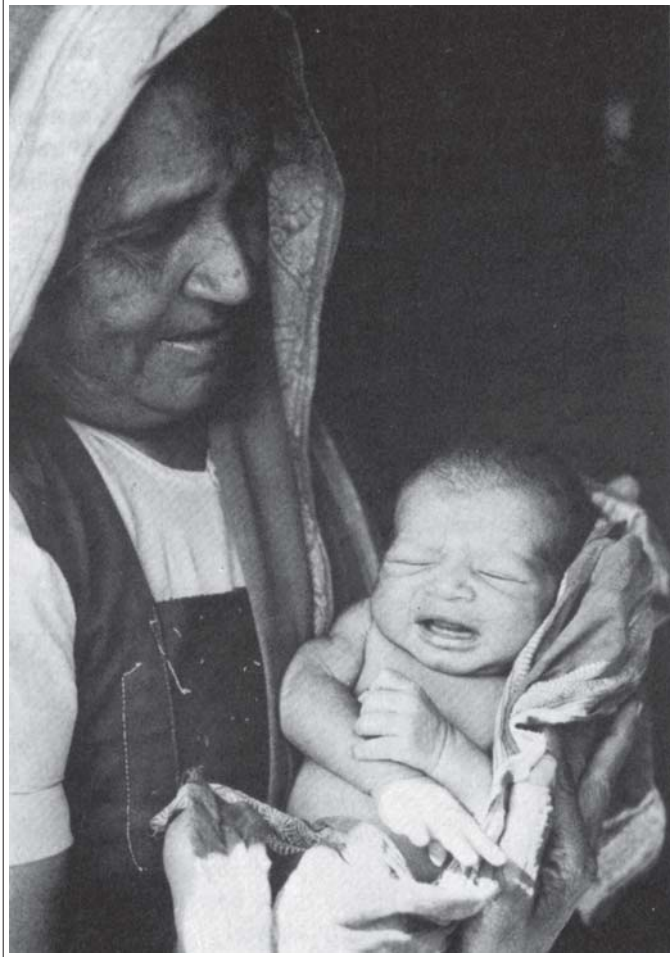
or not, unexplainable painful experiences are always possible. If we still lose babies, if babies are still born damaged, if some babies are still born handicapped, where have all these medical interferences led us? Medicine can go only so far and not beyond. Why not make birth more natural? We should learn to listen to our bodies and have faith in them. For example, most women in labour who are close to birth will not feel like eating. However, water can be taken if a woman is thirsty, and if she is hungry, carbohydrates are the best food as they provide a gradual release of energy, and do not strain the system like fats and proteins. Sometimes doctors ask women to go entirely without food and drink, which can be tough.

It could also lead to dehydration, which doctors prevent by putting the mother on a glucose drip. Would it not be simpler to just drink water when thirsty? Labour is hard physical work, and like all hard physical work, the body requires constant rehydration and energy.

Learning From *Dais*

There are both positive and negative aspects related to birth in a hospital and birth in the traditional setting with a *dai*. It is important we redeem the obstetric skills of the *dais* before they are lost to posterity.

Dais have been an institution in themselves. After independence, the



***Dai* holding a newborn** Courtesy: Ford Foundation

dais made up an army of health workers through the length and breadth of the country. Their skills could have been strengthened by providing basic knowledge of hygiene, infection, and sterilisation. Though some efforts were made to provide training, the combination of the vastness of this task and inadequate attention to this area have led to a much higher mortality rate than there need have been. Unfortunately, a lot of deaths that happened were tetanus related. The *dai*'s insufficient knowledge about the importance of sterilisation led to practices that introduced the fatal tetanus infection into the baby's system.

Some of the infant deaths could also be related to the RH (rhesus) factor. All blood is rhesus negative or rhesus positive. A woman who is rhesus negative and who has a husband that is rhesus positive, runs the risk of bearing a rhesus positive baby. Some of the baby's blood cells may leak into the mother's blood circulation. This is most likely in late pregnancy or at the time of delivery. The mother's blood responds to the baby's blood as it would an invader, and her natural defence mechanism will produce antibodies against it. If these antibodies leak back into the baby's circulation, they can destroy a large number of the baby's blood cells and cause severe anemia and jaundice in the newborn.

In the first baby there is not enough time for this to happen, since the leak mostly occurs at the time of delivery. However the mother's antibodies can vigorously attack her second baby's blood, so that it may not survive, or be severely damaged. In a hospital setting, this is avoided from happening by giving an injection of anti D immunoglobulin 48 hours after the birth. This stops the mother's biological defence mechanism from acting against the foreign rhesus substance.

Of the numerous efforts in training *dais* that have been carried out, one in Tamil Nadu, with support from the Ford Foundation, has been particularly successful. It has shown a dramatic fall

in mortality rates. *Dais* were taught to identify potentially dangerous situations and refer them to appropriate hospitals for care. They were taught the importance of using sterile equipment, to impart prenatal care, support during breast feeding and importance of immunisation. (Dr R.P. Rajan, *Pragna*)

Dais should be used more extensively for spreading general health care messages. In rural areas, there may be no better person than the *dai* to introduce birth control awareness and education, as she already had the confidence of women in the community. With a little training and understanding of fertility, she could be trained to insert the Copper T or Copper 7, to provide a woman with protection against pregnancy.

The introduction of some basic modern medical knowledge to the traditional *dais* will undoubtedly give them a new found status and respect. It would at the same time save indigenous knowledge going back generations from being lost.

It would be ideal if some more research is carried out on traditional birth practices. We need to evolve a new common sense approach to birth. However, the change will be slow. It will mean training student obstetricians differently, with less stress on controlling birth and more on having faith in the body's natural abilities. For instance, after delivery, obstetricians are trained to inject a woman with syntometrine hormone, after which the placenta must be delivered within 10 minutes, or else the uterus may contract and clamp on it. If this happens, anesthesia must be given and the placenta extracted manually. If this stage were left natural, and the baby put to the breast, the suckling of the

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baby would cause the uterus to contract and the placenta to peel away and be delivered. If the mother sits up, it will aid the delivery of the placenta. This could take about 20 minutes, without the use of the syntometrine hormone.

A large percentage of deliveries can happen in well-equipped homes or in birth centres. Only complicated cases need to go to hospitals. We need to train midwives to provide constant, non-invasive support in labour.

The government will also have to recognise that technology should be used conservatively. In the market of new medical technologies, there is a thrust by companies to push their products onto the market without conducting randomised controlled trials. This rush to use new technology can impede a proper assessment of the pros and cons of its use. By the time it

Rajasthani Song

The time we have been waiting for has come.

*A great wind sweeps through the old trees
of the village, bending them
and shaking their fruit.*

One of the households has called the dai.

*We sit in the courtyard smoking the hookah,
barely talking.*

It is the women's time.

*And now the house belongs to the women,
Busy whispering, heating water, warming oil.*

*The new father starts nervously as a horse
at each fresh sound from the house.*

And we joke with him.

*Yes, life is in the balance, but we have
been through it all before.*

And now he is one of us.

For the mother-in-law appears and she's smiling.

*And the first high cries continue like a new bird chirping.
The first lamp is lit.*

There is laughing and congratulation.

Quickly announce it with music in the village.

And invite the neighbours.

Take out the big family cooking vessels.

*In the morning the women will cook with ghee and sugar
and there will be sweets for all the neighbours.*

From: Aditi, *The Living Arts of India*

is widely used by physicians, it is too late to control or even assess its harmful effects.

For those who are apprehensive of this approach, it will be interesting to know that during World War II, there was a tremendous strain on medical facilities and specialist care for pregnancy and birth nearly came to a stop. At this time, for some unexplainable reason, obstetric mortality rates fell to an unprecedented degree. This world wide phenomena seems to have no explanation. (Dr M. Wagner: *Pursuing the Birth Machine*)

Modern obstetric practice has its roots in the West. It started as late as the seventeenth century when men began to use surgery and forceps to extract babies from women. These men were not surgeons, but barbers or butchers, and were called barber-surgeons. These techniques needed the woman to be lying down, and the forceps used were kept secret and applied in great secrecy by screening off the woman waist down.

Around the same time, one of the debauch French kings, Louis XIV, wanted to watch his mistress give birth so he had her lie down to deliver so as to get a good view. This made it seem rather fashionable to lie down and deliver, and probably was the time that birth stools went out of fashion. However, many women shunned such newfangled ideas and continued to give birth at home with the help of an experienced woman from the community. At that time, doctors tended to view pregnancy and birth as natural phenomena. It was only about a hundred years ago with the industrial revolution that birth went to the hospital, and the idea of prenatal care became common.

The greatest number of home births among the industrialised, developed



Courtesy: Ford Foundation

Dai weighing baby

western nations occur today in the Netherlands. In the Netherlands, one third of all births happen at home and birth is not excessively interfered with. The prenatal mortality rate there is lower than ten per thousand, the maternal mortality rate is lower than one per thousand and the caesarean section delivery rate is approximately six percent.

One of the WHO recommendations prescribed after the 1985 conference on appropriate technology for birth says: "Obstetric care that criticises

technological birth care and respects the emotional, psychological and social aspects of birth should be encouraged." This conference was attended by over 50 participants specialising in obstetrics, paediatrics and other relevant professions.

Author's note: Discussed are general guidelines for birth. A particular case may be an exception to the rule. However, exceptions should not be made to seem like rules and misused to make birth in general seem dangerous.