AIMS For a better birth...

Research Roundup

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- Junior doctors cause more caesareans
- Immigrant women get worse birth care
- Sugar relieves pain in very premature babies

Junior doctors cause more caesareans

A huge analysis of more than half-a-million births during 1994-1996 at 64 hospitals in the Thames region has been carried out in an attempt to find what causes a high caesarean rate. Various reasons have been suggested, including litigation, more older mothers, closer monitoring, patient demand and, more recently, a shortage of midwives.

During this two-year period, the maternity units' workload ranged from 870 to over 4000 births a year, and varied widely in caesarean rates. The average was 18 per cent, but it went as low as 8 per cent and as high as 33.4 per cent. Instrumental vaginal deliveries (forceps and vacuum) varied from 5 per cent to 19 per cent, the mean figure being 11 per cent. The overall epidural rate was 31.8 per cent, but it ranged from 9.7 to 74.7 per cent. About one in five women in the region had their labour induced (19.6 per cent) - the lowest rate was nearly 12 per cent, and the highest, 40 per cent.

They collected data on the number of staff-senior and junior doctors, and midwives, and consultant sessions by obstetricians and anaesthetists. Once again, large differences emerged. The number of consultant obstetrician sessions on the labour ward varied from 0 to 10 a week, with an average of 2.5. Consultant anaesthetist sessions varied from 1 to 10, with a mean of 4. The number of midwives per 1000 deliveries varied from 18.3 to 47, with a mean of 29.6.

Analysis showed a strong link between higher epidural rates and forceps or vacuum deliveries as well as caesarean sections. When social-class factors were looked at, it was found that women from white-collar or professional backgrounds were more likely to have epidurals and, therefore, more instrumental births. The social class of patients at different hospitals varied from 27 per cent manual groups up to 72 per cent, and this was linked with the epidural rate. Teenage or low-income mothers had fewer vacuum or forceps deliveries. Older mothers, not surprisingly, had more. The epidural rate went up when there were more junior doctors, and down when there were more midwives.

The caesarean rate increased when the hospital had a higher proportion of low-birthweight babies,

multiple births, more obstetric staff (especially juniors), more special-care baby cots and more married mothers having their first child. Further analyses showed that variations in epidural rates were clearly related to the social class of the women who used the hospital, as were forceps and vacuum rates. But while a simple analysis had shown a relationship with staffing and midwifery levels, the more sophisticated analysis did not.

Yet, this detailed analysis still showed a significant link with numbers of junior obstetric doctors-the more junior doctors there were, the higher the section rate-but not with numbers of consultants. There also seemed to be a link with the number of delivery beds in the unit (ranging from 2.4 to 6.6 per 1000 births a year)-those with more beds had more caesareans. The authors suggest that perhaps having more beds meant women were admitted earlier in labour and were monitored for longer. Also, junior staff might use more invasive monitoring, and are perhaps more cautious and more likely to intervene than consultants.

The further analysis still showed that an increased risk of caesarean was associated with higher epidural rates.

AIMS comments

Figures can make stodgy reading. But this is an important and useful study, and it's worth making the effort. The finding on junior doctors is not surprising. It is well-known that junior doctors generally do more investigations and more surgery than consultants. They need the experience, and haven't yet acquired the confidence not to interfere.

The association of epidurals with higher social-class catchment areas is not surprising either. The authors say, "This may be due to increased demand from these mothers." That sounds like a consumer success story -and it raises many questions.

Does this mean that middle-class women are more likely to want epidurals than poor women or that posh women can make their voices heard because they have the right accent? We know from the Confidential Enquiry into Maternal Deaths and other sources that excluded women are likely to be scapegoated.

How is it that "demand" for more epidurals is effectively met (even aggressively sold) whereas "demand" for normal birth, home birth or continuity of care-even from posh women-is not? What lessons might consumers learn from increased epidural provision following "demand" on how to increase provision of other forms of care? Or is it that hospital staff find it more difficult to cope with more articulate women in pain (and their partners) than the common folk? Would the demand be as high if women were given adequate information on possible risks?

The authors do not mention other possible influences, like middle-class catchment areas providing more potential private patients, hence the need to please them. Nor do they mention the advantage of

epidurals to enable painful induction or speeding up of labour to go ahead without protests from women. Sadly, augmentation of labour did not appear in the analysis.

The lack of correlation between caesareans and levels of midwifery staffing is interesting. However, staffing numbers alone tell us nothing about the organisation of midwifery care nor what percentage of the midwives' time was actually spent caring for women, nor anything about the quality and ethos of midwifery care. The correlation between epidurals and caesareans was not surprising because a midwife in a unit with a 75-per-cent epidural rate is not going to develop or retain her skills in supporting women through normal labour.

Reference

- Joyce R et al. Predictors of obstetric intervention rates: case mix, staffing levels and organizational factors of hospital of birth. J Obstet Gynecol, 2002; 22: 618-25

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Immigrant women get worse birth care

A study from Australia compares the birth experiences of Vietnamese, Filipino and Turkish immigrant women with those of the general population, and shows that they were less satisfied with their care.

In Victoria, one in seven new mothers comes from a non- English-speaking country. Over 300 such women were interviewed six months after having a baby by 'bicultural' interviewers who spoke their own language. The results were compared with a survey of recent mothers in the same area.

Previous research has already shown what women want from birth care:

1. they want professionals who are kind, trusted, respected and helpful;
2. they want information and explanations about what is happening;
3. they want to be listened to and have their wishes taken into account;
4. they want continuity of care. When these conditions are met, they are much more likely to be satisfied.

Filipino women were twice as likely to have a caesarean as the other two groups. Turkish women were more likely to have longer labour and use drugs for pain relief. The Vietnamese women were most likely to have an episiotomy.

How much pain the women experienced or the type of pain relief they had did not have a major effect on their rating of care. It was how they felt about their treatment that mattered. They were more likely to be unhappy about their care if staff were seen as unwelcoming or unhelpful. Those who had previously met their midwives felt more positive. Women who had not had an active say in what happened, who felt

pressure to have the baby quickly or felt that the labour "had been taken over by strangers or machines" were more likely to be dissatisfied. On the other hand, those who had had gentle, supportive and caring midwives were satisfied and appreciative.

Compared with the main-population study, these immigrant women were half as likely to think that staff were welcoming and friendly when they first arrived. They were just as likely as other women to want an active say in decisionmaking, but were less likely to get it. They were also more likely to think the birth had been taken over by strangers or machines. But there was no difference between immigrant and non-immigrant groups in the numbers who felt pressured to give birth quickly, or not having their wishes taken into account (20 per cent in each group).

AIMS comments

As the authors point out, when we speak of the needs of immigrant women, we often emphasise the importance of meeting their different cultural needs - but these were not the issues that worried the women most. Some had problems with the language barrier. But the issues that made them happy or unhappy with childbirth care were the same as those that concern the rest of the population - it was simply that their basic need for kindness, respect and autonomy were even less likely to be met. This has lessons for us in the UK. The last Confidential Enquiry into Maternal Deaths highlighted the neglect of ethnic minority women, and the scapegoating that can take place.

Reference

- Small R et al. Immigrant women's views about care during labor and birth: an Australian study of Vietnamese, Turkish and Filipino women. Birth, 2002; 29: 266-77

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Sugar relieves pain in very premature babies

Premature babies in intensive care often have painful invasive procedures, and this may have longer-term adverse effects on them. The best ways to relieve or reduce pain and stress in these tiny babies are not known. Sucking a sweet solution on dummies has proved helpful when both full-term and premature babies were having painful procedures like heel pricks.

A team in France studied pain relief in babies born between 24 and 32 weeks when they are given injections into the thigh of erythropoietin; each baby was given two injections two days apart. The babies were laid on their backs in the incubator. In the first trial, a tiny amount of either glucose solution or water was put into their mouths from a syringe. For the second injection two days later, each received the other solution so that the reactions of every baby in the study could be seen with both. Pain scores

(rated by an observer who did not know which solution the babies had had) were significantly lower when the babies got the glucose. On the second occasion, they were all given glucose solution, but half of them were given a dummy to suck on as well. Pain was rated on a scale that looked at facial expression, limb movements and "vocal expression".

There were no significant differences between the two groups in pain scores, although a dummy was found helpful with older babies. Pain scores were slightly lower in the dummy group, but this could have arisen by chance. Previous studies have shown a dummy plus sweet solution to be helpful in full-term babies, but preterm babies do not suck as readily or as frequently, and the researchers also mention that, at the time, no appropriately smaller dummies suitable for tinier babies were available.

A possible complication arose: seven of the babies showed slight, temporary oxygen falls, all while taking the tiny amount of glucose, so this needs to be watched. Sweetness does not reduced pain in all babies. A third of those getting glucose showed no benefit.

AIMS comments

Although this was a randomised, crossover study, in our view there is a flaw. We always have to ask exactly what is being measured. The baby's reaction to pain was measured only during the injection and up to withdrawal of the needle. How long the baby cried and what happened after that was not rated or recorded. We can never assume that apparently simple, minor interventions are always harmless. We would not have known about the possible effect on oxygen-saturation levels if this had not been a randomised trial.

This is one of a growing number of studies on pain relief in babies during medical treatment or investigation-which is long overdue. The environment and treatment of premature newborn babies has concerned us for a long time and, whereas a great deal of effort is put into raising money for improving the care of babies in hospital, there has been only a weak and intermittent voice from parents about the quality of premature-baby care and, above all, what these infants have to endure in the way of continuous interventions. We believe more questions should also be asked about the necessity of many of the interventions as well as how to reduce the suffering when they have to be done.

Reference

- Carbajal R et al. Crossover trial of analgesic efficacy of glucose and pacifier in very preterm neonates during subcutaneous injections. Pediatrics, 2002; 110: 389-93

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