

The impact of multiple preterm births on the family

Elizabeth Bryan

As the number of multiple births has steadily risen over the past 20 years, twins and triplets form an increasingly large proportion of the preterm population. This causes a number of stresses to their families. Addressing the cause of the epidemic of iatrogenic multiple births is the most effective way to reduce the number of preterm infants and the long-term problems to which they are prone.

Couples who have been trying for years to have a child may think themselves lucky to acquire two or three at once, and hence have an instant family. They might picture two or more healthy, happy children. They would rarely picture the risks to the children of prematurity and long-term disability or the complications of a multiple pregnancy to the mother. Even less would they foresee the practical, financial and emotional stresses that often result from having two or more children of the same age.

Owing to poorly monitored ovulation induction and multiple embryo transfer in the treatment of subfertility (Loos et al, 1998; Human Fertilisation and Embryology Authority (HFEA), 2000) there has been a steady increase in the number of twins from 9.0 per thousand births in 1980 to 14.2 in 2000 (Office of National Statistics, 2000). There has, however, been an explosion in the number of triplets – a fourfold increase in the UK in the last 15 years. Multiple births are therefore increasingly large contributors to the preterm and low birthweight population.

The average duration of pregnancy is 37 weeks for twins, 33.5 weeks for triplets and 31.5 weeks for quads. About 40% of twins and nearly all triplets and quads are born preterm (<37 weeks). Fifty per cent of twins, 90% of triplets and nearly all quads have a birthweight of less than 2500 g, and 25% of triplets weigh less than 1500 g (Macfarlane et al, 1990). Several studies have found that in-vitro fertilization (IVF) twin infants have a greater tendency to prematurity and low birthweight than those conceived naturally (Lambalk and Van Hooff, 2001). They also have a higher risk of perinatal death and long-term morbidity (HFEA, 2000; Hurst and Lancaster, 2001).

Cerebral palsy is three to seven times as common in twins than in the singleborn and over 10

times more common in triplets (Petterson et al, 1990). A multiple pregnancy is more likely still to produce a bereaved family or a disabled child (Petterson et al, 1990; Yokoyama et al, 1995).

IMPACTS ON THE CHILDREN

The development of most twins and triplets is within the normal range. Nevertheless, for both medical and environmental reasons, these children face a higher risk of long-term disability, learning difficulties and language delay in particular (Hay et al, 1987a; McMahon and Dodd, 1997). Twin children have been found to have lower levels of concentration and a higher incidence of attention deficit hyperactivity disorder (Levy et al, 1996).

The environment of even a healthy twin child (or triplet) differs in many ways from that of a singleborn. Twins must share the mother's attention and mostly communicate in a threesome. This can be difficult for both the children and the mother. Pressures of additional parental duties, shortage of time and factors like safety also tend to deprive children of stimulating opportunities. Multiples may never experience solitude and the self-sufficiency that can develop from it. The relationship between twins themselves, not least increased competition, rivalry and over-stimulation, must also affect each child's development although little research has been done into this subject.

Special needs

Having a chronically ill or disabled child is hard for any parent. Where a twin is involved, the emotional and practical upheavals are likely to be greater. The twin child with a disability will find it difficult to understand why his/her twin is not affected. He/she will watch the co-twin doing things he/she may never be able to do and, if monozygotic, will see a constant image of what

Dr Elizabeth Bryan is Consultant Paediatrician, Multiple Births Foundation, Queen Charlotte's and Chelsea Hospital, London W12 0HS

might have been. Jealousy, anger and depression are not uncommon or surprising (Bryan, 1999a).

It is not unusual for the healthy sibling of any child with a disability to suffer psychological stress, because the disabled child receives so much more attention. Where the disabled sibling is a twin there are likely to be extra difficulties. Jealousy in the early years followed later by guilt (and an excessive burden of responsibility) may afflict him/her. He/she may indeed spend much time caring for his/her disabled twin at the expense of his/her own activities and development.

Because most parents are proud of having twins they may find it hard to stop treating them the same, despite one having severe learning difficulties and often looking very different. This artificial imposition of 'twinness' can burden both children and the development of the more advanced child may be held back.

The single survivor

The child whose twin died in the perinatal period may suffer not only from the loss of his/her companion but also the parents' grief. Parents also sometimes idealize, even idolize, the dead twin (Woodward, 1998) at the expense of the survivor.

The surviving twin can have complex reactions to a twin's death (Bryan, 1999b). Many feel angry with the twin for deserting them, for causing the family such unhappiness or for making them feel guilty. They may be angry with their parents for 'allowing' the twin to die. Others feel guilty to have seemingly survived at the expense of their twin as in the twin-twin transfusion syndrome.

THE FAMILY

The mother and father

For many mothers, relating to one baby is a full-time occupation, emotionally and physically. The complexity and stress of relating simultaneously to twins will be greater if the babies are preterm or separated from her.

Sick preterm multiples may have to be transferred from their hospital of delivery to tertiary care neonatal units and the mother may be unfit to travel with them. Moreover the babies themselves are sometimes allocated to different tertiary units when no single one can provide enough intensive care cots. This can also become a logistic and emotional nightmare for the father.

It is common for mothers of twins to suffer further emotional strains if one baby is notably more ill than the other. Mothers are generally more likely to be attracted to the healthier infant (Goldberg et al, 1986). Size, appearance and responsiveness may also influence the mother's first feelings about the babies. If one twin is dis-

charged from hospital ahead of the other this may reduce the self esteem of the one left behind, even at school age (Hay and O'Brien, 1987).

The long-term effects of early mother-twin relationships have yet to be established. A study of preterm singleborn and twin infants found that mothers of twins took fewer initiatives towards their babies and were less responsive to positive signals and crying. They lifted, held and touched their babies less and talked to them less. When tested at 18 months, the cognitive development of twins was less advanced than singleborn controls and maternal behaviour in the newborn period predicted the children's level of development at 18 months (Ostfeld et al, 2000). It is vital that these children are followed to see if the effects of these early relationships continue through school.

Mothers of twins suffer more from lack of sleep and fatigue than mothers of singleborns (Taylor and Emery, 1988). Furthermore, maternal depression is more common well beyond the infancy period (Thorpe et al, 1991). Isolation and fatigue probably both contribute to this.

Added stresses may occur following the death of a baby or having a child with special needs. The difficulties are greater for having to cope with children of the same age, but with very different needs (Bryan, 1999a). Moreover, the parents, and often the child too, have a constant reminder in the unaffected child of how they both might – indeed should – have looked and been. The special status the public grants to parents of twins is effectively lost if the twins look very different.

Parents who still have a surviving twin (or one or two triplets) face special problems (Bryan, 1999b, 2002). They have a constant reminder of the dead child in the surviving child – especially if monozygotic. Not only do parents of multiple infants lose what many see as a proud status, their bereavement is often underestimated by other people. They may be told that they are lucky to have the survivor (some professional carers have been heard to say this). These factors tend to inhibit a grieving process already delayed by natural preoccupation with the survivor. The hidden bereavement following a multifetal pregnancy reduction may be profound and these families may need ongoing support (Bryan, 2002).

Higher order births

Detailed insights into the lives of families with triplets and higher order births first became available through the UK National Study of Triplets and Higher Order Births (Botting et al, 1990). This examined the medical and social aspects in over 300 families with triplet or higher order birth children from conception until the children

were in school. The report demonstrated the huge practical difficulties of looking after three babies at once, even when all are healthy. At the most simple level, no mother can carry three babies at once. Only with the greatest difficulty can she feed or transport them on her own. Many triplet mothers cannot take their babies out of the home and so become housebound and isolated.

The study found that help for families in the UK, both statutory and private, had been inadequate and slow to arrive. Too often parents became ill and exhausted before help was provided. On occasion discharge of the babies from the neonatal unit was unnecessarily delayed because help at home had not been arranged in time.

A mother simply cannot look after three babies on her own – there are not enough hours in the day. A study by the Australian Multiple Births Association (1984) showed that 197.5 hours per week were required to care for 6-month-old triplets and carry out other necessary household tasks. Unfortunately a week only has 168 hours.

Siblings

A little recognized problem is the effect of twins or triplets on other children in the family. There is often a single toddler who has been the centre of the family until suddenly displaced by an attention-attracting pair or trio. A sibling is likely to be more disturbed by the arrival of twins than of a single sibling and behaviour problems in the older child are more common (Hay et al, 1987b).

SUPPORT FOR FAMILIES WORLDWIDE

Families will continue to need informed advice and support from their carers. The Multiple Births Foundation was established in the UK in 1988 to offer professional support to families with twins, triplets and more as well as information, advice and training to the medical, educational and social work staff involved with their care. It has published five sets of guidelines for professionals on the care of multiple birth families from before conception to adolescence (Bryan et al, 2001).

Despite a limit in many countries of three embryos to be transferred in any one IVF cycle the

increasing incidence of multiple births in most developed countries continues to cause concern. For many couples, a multiple pregnancy is too high a price to pay for infertility treatment. An increasing number of European centres, particularly in Scandinavia, are therefore now advocating single embryo transfers in selected patients (Vilksa et al, 1999). More IVF specialists are likely to take this view as embryo selection improves. **HM**

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KEY POINTS

- Multiple births represent an increasingly large proportion of preterm births and this can only be reduced by addressing the iatrogenic causes.
- Multiple birth children face a higher risk of disability, learning difficulties, language delay and behaviour problems than singleborn children.
- The problems of a single surviving twin and the unaffected child of a disabled twin are often underestimated.
- Bereaved parents with surviving multiples suffer complex emotions.
- Informed professional and peer support is essential to reduce the special stresses experienced by families with multiple births.