Crying is the primary means of communication available to young infants during a stage of development when they are almost completely dependent on others to meet their needs. Because crying typically elicits care, it also plays a role in developing the attachment relationship, as the infant becomes emotionally attached to the individual who most reliably responds to his or her crying.

While the quality and quantity of early crying can vary greatly, several studies have demonstrated that infants typically increase in their crying across the first 3 months, with a peak around 6 to 8 weeks of age. Crying decreases significantly around 3 to 4 months of age, coinciding with important developmental changes in affect, non-negative vocalizations and motor behaviour.

Dr. Cynthia A. Stifter, of Pennsylvania State University, distinguishes two types of excessive crying. Unexplained, excessive or persistent crying in the first 3 months of life that occurs in an otherwise healthy infant is labelled “infant colic,” and affects about 10% of the population. Infants who fuss or cry for shorter periods of time, but who are difficult to soothe and whose fussiness persists throughout infancy, are said to have a “difficult temperament”.

Although there is ample evidence that colic is psychologically stressful for parents in the short term, the parent-infant relationship appears to heal soon after colic disappears. However, many infants labelled as having difficult temperament show numerous deficits in childhood and adolescence, including attention, behaviour and school problems.

The data suggest that caring for a fussy, hard-to-soothe infant stresses the parenting system. For example, mothers of difficult infants have been found to be less responsive and exhibit lower levels of positive maternal behaviour. Dr. Debra M. Zeifman, of Vassar College, notes that early interventions targeting parental sensitivity and responsiveness have been successful in improving child development outcomes in such cases.

On the other hand, Dr. Philip Sanford Zeskind, of the Carolinas Medical Center, argues that it is the combination of cry sounds and adult characteristics that determines how the parent will respond and consequently, the impact on the infant’s psycho-social development. “Infant crying is as a biological siren, a signal that alerts and motivates the parent to attend to the infant’s needs,” he describes.

Infants who are at risk for poor psycho-social outcomes due to prenatal or other conditions — including brain damage, malnutrition, asphyxia and substance abuse during pregnancy — often have particularly high-pitched or hyperphonated cries. Yet this cry is a double edged sword. Some caregivers will try to do whatever is necessary to stop the sound, thus providing the kinds of auditory, visual and tactile forms of stimulation that promote infant development. Others, however, may respond defensively, resulting in actions that are detrimental to the infant’s well-being. In extreme cases, this may include physical abuse or neglect (see article on Shaken Baby Syndrome p.4).

One study showed that adolescent mothers, women suffering from depression and women who used cocaine during pregnancy perceived cries of increasing pitch as being less arousing and less worthy of immediate care. Dr. Zeskind concludes that “when helping parents cope with excessive crying is as a biological siren, a signal that alerts and motivates the parent to attend to the infant’s needs,” he describes.

Infants who are at risk for poor psycho-social outcomes due to prenatal or other conditions — including brain damage, malnutrition, asphyxia and substance abuse during pregnancy — often have particularly high-pitched or hyperphonated cries. Yet this cry is a double edged sword. Some caregivers will try to do whatever is necessary to stop the sound, thus providing the kinds of auditory, visual and tactile forms of stimulation that promote infant development. Others, however, may respond defensively, resulting in actions that are detrimental to the infant’s well-being. In extreme cases, this may include physical abuse or neglect (see article on Shaken Baby Syndrome p.4).

One study showed that adolescent mothers, women suffering from depression and women who used cocaine during pregnancy perceived cries of increasing pitch as being less arousing and less worthy of immediate care. Dr. Zeskind concludes that “when helping parents cope with excessive crying is as a biological siren, a signal that alerts and motivates the parent to attend to the infant’s needs,” he describes.
“Most infants who cry a great deal are healthy and stop crying spontaneously.”

crying, we should be cognizant of possible difference in the cry sound and how these cry sounds may have different salience for different mothers, especially those suffering from depression or other conditions that alter their perceptual set.”

CAUSES OF COLIC

Yet even healthy infants cry for long periods for no apparent reason. Parents often have a sense of losing control; many view it as a sign that something is wrong. Popular books have given parents conflicting advice, compounding the problem.

Dr. Ian St. James-Roberts, of the University of London, U.K., explains that while excessive crying, or colic, was once attributed to gastrointestinal disturbance, more recent research has begun to nuance this view. In fact, organic disturbances are rare; proper diagnosis is therefore important. Dietary treatments (such as eliminating cow’s milk from the mother’s diet) lack evidence of practical effectiveness and may cause women to abandon breastfeeding, going against public-health policy.

The search for the cause of crying has shifted to studies of the neurodevelopmental changes that normally take place during early infancy. A Montreal study led by Dr. Ronald G. Barr looked at the duration, frequency and intensity of crying in infants at 6 weeks and 5 months. It concluded that while prolonged distress bouts and unsootheable crying are specific to the first few months and more common in infants with colic, they are not unique to these infants. “This implies that our understanding of colic may depend more on why these infants cry longer once started than what makes infants cry,” the researchers state.

This new understanding that colic or unsootheable crying in the first few months of life is usually part of a baby’s normal development also implies that the social and emotional consequences of this crying are largely a function of how parents interpret and respond to the crying.

MATERNAL DEPRESSION

In the context of post-partum depression (PPD), excessive crying behaviour poses a particular problem. Post-partum depression affects 10% to 20% of all mothers, and can compromise infants’ social, emotional and cognitive development. Incidence is highest in the first 3 months, corresponding to peak crying among infants. “If infant crying is a signal to engage the mother, what does it mean for the developing infant when the cry signal is ignored or misinterpreted by the depressed mother?” asks Dr. Tim Oberlander, of the University of British Columbia.

Preliminary studies suggest that infants of depressed mothers cry more frequently and that PPD may reduce the mother’s capacity to process the infant’s signals and respond appropriately. Infant crying itself may adversely influence maternal mood. In light of these findings, Oberlander suggests that infant crying may be a gateway for intervening in maternal depression. Interventions might focus on helping mothers understand why their baby is crying. “Understanding maternal failure to respond appropriately may be a key element in developing interventions that promote healthy infant and child development in the presence of post-partum depression.”

INFORMATION AND SUPPORT

Ultimately, how parents interpret and respond to their infant’s cries, rather than the crying itself, is what determines long-term social and emotional development outcomes. “Most infants who cry a great deal are healthy and stop crying spontaneously,” states Dr. St. James-Roberts. For this reason, current recommendations focus on providing parents with information and support to contain crying.

Finally, Dr. Liisa Lehtonen, of the Turku University Hospital in Finland, adds there is even a positive side to crying: “If crying is explained to parents as signalling vigour, health and robustness, parents may even see its positive side.”

BY EVE KRAKOW