

# Behavioral Disorders

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## SECTION 3

### Chapter 11

## CRYING AND COLIC

Infant crying, a sign of pain, distress, hunger, or fatigue, is interpreted by caregivers according to the context of the crying. The cry just after birth heralds the infant's health and vigor. The screams of the same infant, 6 weeks later, may be interpreted as a sign of illness, difficult temperament, or poor parenting. Crying is a manifestation of infant arousal influenced by the environment and interpreted through the lens of the family, social, and cultural context.

### NORMAL DEVELOPMENT

Crying is best understood by the characteristics of timing, duration, frequency, intensity, and modifiability of the cry (Fig. 11-1). Most infants cry little during the first 2 weeks of life, gradually increasing to 3 hours per day by 6 weeks and decreasing to 1 hour per day by 12 weeks.

Cry **duration** differs by culture and infant care practices. For example, !Kung San hunter-gatherer infants, who are continuously carried and fed four times per hour, cry 50% less than infants in the United States. Crying may also relate to health status. Premature infants cry little before 40 weeks gestational age but tend to cry more than term infants at 6 weeks' corrected age. Crying behavior in former premature infants also may be influenced by ongoing medical conditions, such as bronchopulmonary dysplasia, visual impairments, and feeding disorders. The duration of crying is often modifiable by caregiving strategies.

**Frequency** of crying is less variable than duration of crying. At 6 weeks of age, the mean frequency of combined crying and fussing is 10 episodes in 24 hours. Diurnal variation in crying is the norm, with crying concentrated in the late afternoon and evening.

The **intensity** of infant crying varies, with descriptions ranging from fussing to screaming. An intense infant cry (pitch and loudness) is more likely to elicit concern or even alarm from parents and caregivers than an infant who frets more quietly. Pain cries of newborns are remarkably loud: 80 dB at a distance of 30.5 cm from the infant's mouth. Although pain cries have a higher frequency than hunger cries, when not attended to for a protracted period, hunger cries become acoustically similar to pain cries. Fortunately most infant crying is of a lesser intensity, consistent with fussing.

### COLIC

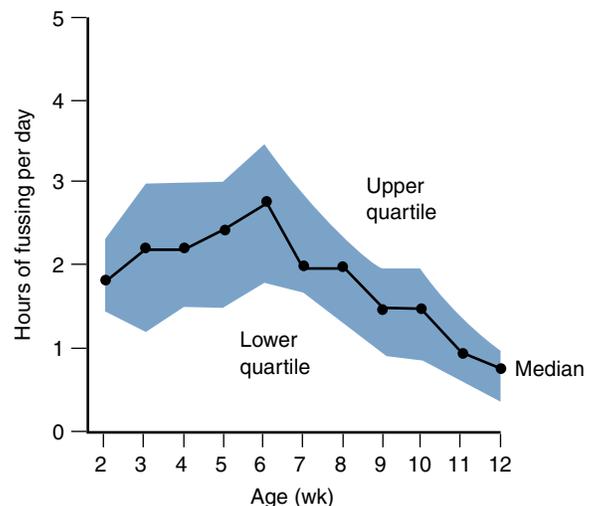
Colic often is diagnosed using **Wessel's rule of threes**—crying for more than 3 hours per day, at least 3 days per week, for more than 3 weeks. The limitations of this definition include the lack of specificity of the word *crying* (e.g., does this include fussing?) and the necessity to wait 3 weeks to make a diagnosis in an infant who has excessive crying. Colicky crying is often described as paroxysmal and may be characterized by facial grimacing, leg flexion, and passing flatus.

### Etiology

Fewer than 5% of infants evaluated for excessive crying have an organic etiology. Because the etiology of colic is unknown, this syndrome may represent the extreme of the normal phenomenon of infant crying. Nonetheless evaluation of infants with excessive crying is warranted.

### Epidemiology

Cumulative incidence rates of colic vary from 5% to 19% in different studies. Girls and boys are affected equally. Studies vary by how colic is defined and by data collection methodology, such as maintaining a cry diary or actual recording of infant vocalizations. Concern about infant crying also varies by culture, and this may influence what is recorded as crying or fussing.



**Figure 11-1** Distribution of total crying time among 80 infants studied from 2 to 12 weeks of age. Data derived from daily crying diaries recorded by mothers. (From Brazelton TB: *Crying in infancy*. Pediatrics 29:582, 1962.)