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Disorders of Elimination

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Every one of us began life wetting the bed and making a “mess” of diapers on a daily basis. Our parents and others then imposed some form of toilet training on us. By various means, they taught us when to eliminate and when to withhold urine and feces, and they insisted that we learn to comply with the rules. We were not alone. In a classic study of 22 cultures, Whiting and Child (1953) concluded that toilet training is the most basic and universal target of socialization everywhere. Furthermore, virtually every culture appears to succeed in toilet training 80–90% of its new members within the expected time limit. The few who remain untrained, or who become trained but then relapse, are said to have a disorder of elimination.

Our goal in this chapter is to summarize what is known about the origins, diagnosis, and treatment of children who do not achieve continence at the culturally expected time, or who revert to incontinence after training has apparently been successful.

PHYSIOLOGICAL AND DEVELOPMENTAL MECHANISMS

In order to fully explain the elimination disorders and the methods used to treat them, we begin with a general description of the physiological mechanisms underlying urination and defecation.

The Physiology of Urination

The human bladder is actually a stretchy, hollow muscle (the detrusor vesicae) in which urine is collected continuously. As urine accumulates, the bladder stretches, producing an initial urge to urinate that must be voluntarily suppressed until reaching a toilet. Enuresis is defined as passing urine anywhere except into a toilet (DSM-IV Code 307.6; American
Successful treatment of enuresis is presumed to involve increasing the individual’s sensitivity to appropriate body signals and/or increasing voluntary control over the relevant muscles.

The Physiology of Defecation

The digestive tract is a long hollow tube, with the colon and the rectum at the distal end. After food is digested in the stomach and small intestine, the remaining waste products move through the colon and gradually shift from a liquid state to a semisolid one. When sufficient waste accumulates, muscle contractions move it down the colon and into the rectum. The resultant stretching of the walls of the rectum leads to the urge to defecate. Unless voluntarily controlled, this urge will lead to a relaxation of the external and internal sphincters and subsequent evacuation. Those who fail to exhibit such control are said to have encopresis, defined as passing feces anywhere but into a toilet (without constipation and overflow incontinence, DSM-IV Code 307.7; with constipation and overflow incontinence, DSM-IV Code 787.6; American Psychiatric Association, 1994).

Developmental Considerations

Before a child can achieve independent toileting, there must have been adequate development in five domains: communication skills, social and emotional development, fine motor development, gross motor development, and cognitive development. Specifically, communication skills are required to convey to caretakers that an elimination need is present. Social and emotional development must have reached the point where the child recognizes the necessity of adhering to certain parental/societal expectations. Fine motor skills are needed to manipulate clothing, use toilet paper, and so on. Gross motor skills are needed to assume the required body postures/positions for using toilet facilities, and, not least, cognitive skills are needed to understand the meaning of relevant bodily sensations, and to exhibit planfulness and self-control when it comes to satisfying elimination needs. Thus, an overall evaluation of developmental readiness is the first step in assessing any child’s toileting problems.

NOMENCLATURE AND PREVALENCE

Most children in the United States are completely toilet trained before their fourth birthdays, so children over this age who are still wetting or soiling are said to have a disorder of elimination. In other cultures, expectations are different. For example, the Bena of Africa do not begin toilet training until their children are almost 5 years old, and often the children are not completely trained until they are 6 or 7; the Tanala of Madagascar, on the other hand, begin toilet training when their infants are only a few months old and expect full continence by the sixth month (Whiting & Child, 1953).

The Functional–Organic Distinction

In diagnosing elimination disorders, a fundamental distinction is made between those that are functional and those that are organic. Organic disorders are caused by an underlying