

CHILDHOOD INJURIES AND ERIKSON'S PSYCHOSOCIAL STAGES

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Childhood injury epidemiologists and injury control researchers commonly use a 40-year-old epidemiologic agent-host-environment model to explain injuries and have not considered the value of placing childhood injuries in the context of general theories of human development. The psychosocial stages elucidated by Erik H. Erikson may be a useful heuristic approach for childhood injury investigators to consider. Examples of common childhood injuries during the first 4 psychosocial stages, trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt and industry vs. inferiority are presented to illustrate how Erikson's theory may be of value in understanding and controlling the prevalence of childhood injuries in the United States.

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The mortality rate for children in the United States is higher than most industrialized countries and the difference has been attributed to the prevalence of childhood injuries (Rosenburg, Rodriguez, & Chorba, 1990). The economic costs for childhood injuries are reported to be \$8.5 billion annually (Rice & Mackenzie, 1989). Human costs are 22,000 deaths, 30,000 permanent disabilities, 600,000 hospital and 16,000,000 emergency room visits each year for US children. These rates are greatest for minorities and the poor (Rodriguez & Brown, 1990).

Erik H. Erikson (1959) asked the question how does a healthy personality develop an increased capacity to, "master life's outer and inner dangers?" (p. 52). Al-

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though he did not directly address the issues of child safety and injury, the epigenetic, psychosocial theory of life span development proposed by Erikson may be a useful heuristic approach for childhood injury investigators to consider. Examples of common childhood injuries during the first four psychosocial stages, trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, and industry vs. inferiority are presented to illustrate how Erikson's theory may be of value in understanding and controlling the prevalence of childhood injuries.

Erikson's Basis for the Epigenetic Model

Erikson (1965) used prenatal development to illustrate the concept of epigenetic growth, noting the importance of timing and sequencing required for healthy prenatal maturation. He noted that the months before birth are critical to insure proper later development. Erikson's idea of a different crisis emerging at each psychosocial stage was adapted from embryologists' critical period concept.

Although Erikson did not consider the prenatal period as a psychosocial stage, sensitive caregiving during this time is required to insure that various preventable injuries do not occur (e.g., fetal alcohol syndrome, low birth weight, anemia from lead toxins consumed by mother during gestation). Maternal health behaviors, diet, tobacco, alcohol and other drug use are implicated in various preventable injuries to the neonate, but adequate prenatal care and education exist for only a portion of women in US society.

Psychosocial Stages and Childhood Injuries

The first year of life is centered around the development of a ratio of basic trust vs. mistrust, Erikson's initial psychosocial stage of development. Hope is the lasting theme of this stage (Erikson, 1985), with "trust born of care" (p. 250). Inappropriate caregiving has been implicated in numerous studies of early childhood injuries (Garbarino, 1988). Drowning in home bathtubs is a common cause of death from injury to infants. These situations typically occur when the caregiver leaves the baby unattended in water. Infant injury control programs should stress that babies should never be left unattended in water, regardless of day to day distractions which may lead the caregiver away from the baby's bath.

The extent that motor vehicle injuries maim and kill infants is often related to inattentive or inappropriate adult behaviors, (e.g., alcohol consumption, failure to use infant car seats properly). It is Erikson's position that a basic ratio of trust-mistrust develops in the first year, but that the consequences of an improper ratio may continue to have adverse effects through the life cycle. Parenting skills and cultural attitudes toward preventing intentional as well as unintentional injuries during this time are clearly implicated in the establishment of a healthy sense of trust-mistrust.

The psychosocial theme of autonomy-shame and doubt is manifested during

toddlerhood and leads to self-will or will-power. Toddlers may act in ways to assert their autonomy (Erikson, 1985), "inspired by acts of defiance" (p. 255). The extent to which displays of outward hostility toward caregivers are related to injuries is not well understood. For example, Sobel (1970) reported that hostility toward the mother was related to toddlers' ingestions of toxins. Ingestion of toxic substances peaks between 24-30 months and has been reported to frequently occur when the child is in reasonable proximity to a caregiver. Caregivers have often noted that poisoned children unexpectedly and quickly found and consumed the toxic substance (Waller, 1985).

During this period lacerations from falls are the most common injuries. The mortality rates from drowning in pools of water peaks around 24 months. Baker (1984) has noted that 85% of drownings in pools of water result from the young child falling into water. The desire for autonomy produces behaviors that lead to common toddler injuries.

The shift from Erikson's second psychosocial stage to the next, initiative vs. guilt, involves the child's transition from generally willful behaviors to approaching tasks with greater degrees of understanding, planning, and purpose. Failure to adequately develop the initial ability to undertake planned, purposeful activities may be related to injury during this stage. For example, urban children who ride bicycles frequently report they fail to follow directions (laws) which pertain to traffic safety (Jacobs, 1981; Sandels, 1979).

Without healthy ego development during this period, many behaviors may be viewed as risky, leading to preventable injuries. There may be an intergenerational effect. Rivara (1988) reported that a common factor for bicycle-related injuries was a mismatch between the bicycle and the size of child. Parents may not bother to plan and neglect to read cautionary descriptions of how children should fit the size of their bicycles. Children may simply accept their parents' lack of judgment without protest. They may have little recourse but to ride the mismatched bicycle. Children and parents who fail to understand the importance of wearing bicycle helmets to prevent serious injuries are also headed for trouble.

Erikson (1985) suggested that during the stage of industry vs. inferiority a technological ethos is developed as the child begins to take an interest in the "utensils, tools, and the weapons used by big people" (p. 26). Youths in this stage have become increasingly involved with organized sports activities and the number of sports related injuries has increased dramatically.

Pillemer and Micheli (1988) observed "deeply rooted in our culture exists a strong connectedness between athletic participation and personal growth and development" (p. 679). The role of sport activities during this age in our culture reflects children's growing sense of the division of labor and different opportunities dependent on acquired skills deemed important by their society. Contact

sports have substantial injury risks associated with them (e.g., over 140,000 little league baseball injuries in 1990). Many children use the opportunity to play sports as a way of appraising their relative industriousness-inferiority.

Childhood Injury Prevention and the Developmental Perspective

The last 40 years of injury research have been guided by Gordon's (1949) epidemiologic paradigm, agent-host-environment. Rivara (1982) noted that injury control specialists have shown little interest in using developmental models to provide a context for understanding and describing childhood injuries. Injury researchers have generally failed to grasp the heuristic value of conceptual theories and have missed the connection between themes in human development literature and the etiology of childhood injuries. For example, Scheidt (1988) noted the importance of family relationships and child development in understanding the origins, mechanisms, and prevention of childhood injuries. He suggested that developmental factors are major contributors to differences in childhood injury rates and provided an analysis of age-related changes and mechanisms of childhood injuries.

Scheidt's description of developmental stages and injuries illustrates the generally limited background childhood injury control specialists have in the area of human development. His analysis begins with early bonding and attachment, but he states the first year of life, "contains relatively little parent teaching compared with successive years" (p. 614). To the contrary, attachment theorists and researchers maintain that the learning processes involved with early mother-infant attachment have enduring qualities through later stages of the life cycle (Ainsworth & Bowlby, 1991).

Scheidt continued his stage analysis of childhood injuries by describing changes in motor and cognitive development through adolescence. He limited the contributions of other issues in human development by reviewing only these two domains. This is not an unusual position for injury control specialists to take and is reflected by the fact that virtually all childhood injury media address cognitive and motor issues at the expense of interpersonal, family relationship, and psychosocial development factors. Scheidt emphasized the importance of these factors, yet excluded them from his stage analysis of childhood injuries.

Garbarino (1988) has also used a developmental perspective to address the problem of childhood injuries. Garbarino reviewed a portion of the literature on infant mortality from injuries and concluded, "Inappropriate parenting may be a common feature of many families in which childhood injuries occur, even when the immediate cause appears to lie in some other domain of risk" (p. 44). Garbarino was referring to shaken baby syndrome being diagnosed as SIDS. Other examples are infant drowning, choking, or suffocation produced as consequences of inappropriate caregiving.

Rivara (1982) has described mortality rates from different injuries for different stages of development. Infants have high mortality rates from motor vehicle collisions, falls, and asphyxiation, and homicide has recently been placed on the list of major causes of infant and toddler deaths. (Rosenberg, Rodriguez, & Chorba, 1990). Rivara noted that preschool children are particularly susceptible to poisons, burns and home injuries. As the child matures, drownings, sports injuries and motor vehicle injuries prevail.

The relationship between the first four of Erikson's psychosocial stages and childhood injuries helps make sense of changing patterns of injuries described in the literature. Psychosocial personality development may be a dimension of human growth that has considerable implications for the study of childhood injuries. Erikson's theory provides a background for understanding the qualitative shifts in injury reports as children mature. Placing childhood injury events in the context of psychosocial development gives a different emphasis to injury research. The few examples I provided in the brief article are meant to focus attention away from agent-host-environment approach to injury control and lead injury control specialists to examine this and other central themes of human development.

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