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Psychosocial implications of pediatric surgical hospitalization

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ABSTRACT

The prevalence of childhood surgical illness and injury requiring hospitalization suggests the need for implementation of an applied intervention to decrease levels of anxiety in these patients. When psychological concerns are not addressed in the present moment, potential for long-term negative psychological effects occur. To respond to the psychosocial needs of pediatric surgical patients it is important to understand foundational stages of development. Age is not always directly correlated with developmental stage and attunement to this subtle differentiation is essential. Some medical facilities offer services to pediatric surgical patients that include education about upcoming procedures as well as medical play which offers the opportunity to express emotions correlated with the hospitalization experience. This approach is directive in nature and controls the process of making sense of the medical environment. An alternative is Child Centered Play Therapy (CCPT) which creates an outlet for any emotions the children choose to express. CCPT offers comprehensive mental health care through a developmentally-appropriate, undirected intervention carried out by a mental health therapist and has been shown to reduce perceived and actual psychological trauma, anxiety, and behavioral issues in children preparing for surgery.

Hospitalization and surgery can be an emotionally threatening and psychologically traumatizing experience, especially for children.[1–3] There exist a number of protocols to reduce these effects including education about upcoming procedures, a tour of the hospital and operating room, a review of picture books about the experience, and video introductions. In addition, medical play with surgical instruments and dolls encourages children to express concerns about upcoming procedures,[4–12] and one study has investigated the impact of Child Centered Play Therapy (CCPT) on anxiety in pre-surgical pediatric patients in hospital settings, with promising results.[13]

Hospitalized children often feel loss of freedom, perceived or actual, which increases the need for emotional containment and processing. Containment can be facilitated by therapeutic play in medical settings.[2,14] One type of therapeutic play, medical play therapy, reduces behavioral issues by offering directed play activities encouraging expression, control, and autonomy during hospitalization.[2] Child Centered Play Therapy (CCPT) improves upon traditional medical play by allowing the child to lead the process.[14] For example, if a child witnessed an argument between the parents the night prior to surgery, the child may be suffering from two sets of anxiety-provoking situations: impending surgery and parental distress. Traditional medical play assumes a child's distress is only related to the medical situation. Non-directive CCPT facilitates a safe play environment allowing the child to express concerns about the setting, medical procedures, parental distress, all, or none of these issues thereby allowing the child to play out the emotions that feel most important in the moment.

Hospitalization increases the potential for unresolved anxiety, which produces long-term psychological trauma. Trauma can present behaviorally, emotionally, and physiologically as nervousness, aggression, anger, fear of mutilation, guilt, pain, and rage.[15–19] Children need a form of age-appropriate control and self-expression during their healthcare process that is conducive to successful treatment. An understanding of developmental stage is fundamental to understand the child's responses to hospitalization and to determine the most effective method to manage any adverse psychological effects.

Developmental stages

Innate traits, the environment in which one is reared, and experiences gained at specific life stages influence personality and communication style. Erikson suggested eight developmental stages: (1) Infancy: trust vs. mistrust; (2) Early childhood: autonomy vs. shame and doubt; (3) Play age: initiative vs. guilt; (4) School age: industry vs. inferiority; (5) Adolescence: identity vs. role confusion; (6) Young adulthood: intimacy vs. isolation; (7) Adulthood: generativity vs. stagnation; and (8) Old age: ego integrity vs. despair.[20] Positive resolution of the crisis at each

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developmental stage helps people develop ego qualities necessary for maturity throughout the lifecycle. Negative experiences during a stage can interfere with healthy functioning as the needed virtue is missed or partially imparted. Virtues can be recovered during later stages with proper counseling.[21] A review of the first four developmental stages establishes a foundation for understanding the emotional needs of young children. Further, it invites the surgeon to explore the developmental necessity of identifying a valid and reliable method for meeting emotional needs prior to surgical intervention.

Stage one—Infancy: trust vs. mistrust

During the first 18 months the primary psychosocial crisis relates to the development of trust or mistrust. An infant's ability to trust is dependent upon the level of attachment and connection with the caregiver, which is evaluated by response to expressed need. When infants cry they need to experience the primary caregiver as a present, attentive, problem-solver. This helps the infant master the virtue of hope. Alternatively, if an infant is ignored or if the caregiver is incompetent, inconsistent, or distracted, hope does not become established. During later stages, lack of hope increases anxiety and hampers the ability to self-soothe.

Knowledge of stage one is especially important within a hospital setting because mistrust heightens both separation and stranger anxiety.[12] If mistrust was developed during infancy, a child hospitalized during a later developmental stage may suffer from undue emotional distress when entrusted to medical staff for the testing, medical interventions, and the transition from the pre-operative area to the operating room. In a hospitalized setting, children who are not securely attached may question the caregiver's protection and may also fear harm from medical providers.[3,8,12,22]

Stage two—Early childhood: autonomy vs. shame and doubt

Learning the power of their own will, toddlers in Erikson's second psychosocial stage struggle to balance autonomy with shame and doubt. Autonomy is attained when a toddler masters a task alone. Mastery occurs when children make decisions, experience consequences, and self-correct or accept appropriate correction from caregivers. Personal control over physical skills and a sense of independence over their interpersonal environment encourages autonomy. Children may feel threatened by changes in routine or lack of control over environment. Medical treatment removes toddlers' most important sense of control; the ability to determine what happens to their own bodies. Caregivers must provide every opportunity for choices that allow them to feel autonomous and masterful.

Young children without a sense of autonomy are likely to display stubborn tendencies and may act out in order to assert themselves.[23] If autonomy and independence are not achieved during stage two, children may suffer from shame and doubt. This commonly results from parents over-controlling, over-indulging, or shaming children. The successful completion of this stage results in children who are able to make choices independently of parents, but within clear boundaries. Mastery of autonomy influences later development and is the key to understanding the needs of these children in medical environments.

Toddlers receiving medical care are bewildered by the rapid changes in environment and routine. They have little to no control over medical protocols for their specific diagnosis.[24–30] Toddlers undergoing treatment do not choose the nurse or doctor overseeing their care, pick attire for surgery, decide who touches them, schedule convenient visits, decide when to eat, choose intravenous fluid, assess medication side effects, or opt to leave if they are uncomfortable. Hospitalization for children can feel confusing, isolating, and lonely.

Additionally, toddlers are sensitive to punishment. It is possible they may feel that hospitalization is a punishment for wrongdoing and fear mutilation or bodily injury that they naturally correlate with their negative thoughts or actions.[12,31] Interventions that allow emotional soothing may help clarify that the medical procedure is intended to be beneficial rather than punitive.[31] Care providers who attend to this developmental imperative assist the toddler to develop stronger feelings of autonomy and independence.

Stage three—Play age: initiative vs. guilt

Preschoolers explore with curiosity and imagination. Captivated by goals and questions, children aged 3–5 are busy choosing and creating activity and adventure. They also desire power and control over their environment. The amount of initiative required to achieve goals provides a sense of purpose.

Erikson's third stage of development is characterized by the child's ability to set and complete goals. A preschooler's increased cognitive development, including locomotion and language skills, naturally put them at risk of exerting too much power. When parents or caregivers react harshly or even respond appropriately, children struggling to manage difficult experiences feel guilt. Preschoolers given age-appropriate responsibility to take ownership of their actions, experience a reduced level of anxiety.[1,2,3,14,32]

Stage four—School age: industry vs. inferiority

School-age children are active learners with well-developed language skills and clear time conceptions. Their social worlds expand to include peers and adult role models other than family members. They become industrious as they repeatedly master tasks in and out of the classroom and competence develops with successful repetition and task completion. Lack of success leads to inadequacy and ego fragility and when this occurs, children are likely to give up or regress to an earlier stage of development with a shaken sense of identity and increased susceptibility to anxiety.[21]

Not surprisingly school-aged children find hospitalization very distressful as a result of changes from daily routines, attempts to control unknown and unfamiliar situations, imagining possible outcomes, and relating to strangers.[33] Hospitalized school-aged children also internalize provider behavior, comments, and reactions, magnifying feelings of anxiety.[33–35]

Developmental considerations

It is important to recognize that chronological age does not always match developmental stage. Interventions designed to reduce pre-surgical anxiety in pediatric patients must cater to the needs of each child based on developmental stage rather than age. For example, if an 8-year-old child has experienced an attachment disruption during infancy and resolution has never occurred, the child may present as clingy in the hospitalized setting. In this instance, the best way to meet the developmental needs of the child would be to attune as though the child were in the infancy stage.

Anxiety and the pediatric surgical patient

Child development experts reported short term, visually salient, somewhat painful procedures produce high levels of emotional discomfort in juvenile patients.[36,37] Included among these stressors are venipuncture, pre-surgical injection, parting from the