

CHAPTER 5

Developmental Stages of the Learner

Susan B. Bastable | Gina M. Myers

Chapter Highlights

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Objectives

After completing this chapter, the reader will be able to

1. Identify the physical, cognitive, and psychosocial characteristics of learners that influence learning at various stages of growth and development.
2. Recognize the role of the nurse as teacher in assessing stage-specific learner needs according to maturational levels.
3. Determine the role of the family in patient education.
4. Discuss appropriate teaching strategies effective for learners at different developmental stages.

Key Terms

ageism
andragogy
causality
causal thinking
conservation
crystallized intelligence
fluid intelligence
gerogogy
imaginary audience
pedagogy
personal fable
precausal thinking
syllogistic reasoning

When planning, designing, implementing, and evaluating patient education, the nurse must carefully consider the characteristics of learners with respect to their developmental stage in life. The more diverse the audience, the more complex teaching will be to meet the needs of patients and their family members. Conversely, teaching a group of learners with the same characteristics will be more straightforward.

An individual's developmental stage significantly influences his or her ability to learn. To meet the health-related educational needs of learners, a developmental approach must be used. Three major factors associated with learner readiness—physical, cognitive, and psychosocial maturation—must be taken into account at each developmental period throughout the life cycle.

A deliberate attempt has been made to minimize reference to age as a criterion for learning. Research on life-span development shows that chronological age per se is not the only predictor of learning ability (Crandell, Crandell, & Vander Zanden, 2012; Santrock, 2013). At any given age, there can be a wide variation in abilities related to physical, cognitive, and psychosocial maturation. Age ranges, included after each developmental stage heading in this chapter, are intended to be used only as general guidelines; they do not imply that chronological age corresponds perfectly to developmental stage.

This chapter has specific implications for staff nurses because of the recent mandates by The Joint Commission. For healthcare agencies to meet Joint Commission accreditation requirements, teaching plans must address stage-specific competencies of the learner. In this chapter, therefore, the distinct life stages of learners are examined from the perspective of physical, cognitive, and psychosocial development. Also, this chapter emphasizes the role of the nurse in assessment of stage-specific learner needs, the role of the family in the teaching–learning process, and the teaching strategies specific to meeting the needs of learners at various developmental stages of life.

Developmental Characteristics

As noted earlier, actual chronological age is only a relative indicator of someone's physical, cognitive, and psychosocial stage of development. Unique as each individual is, however, some typical developmental trends have been identified as milestones of normal progression through the life cycle. When dealing with the teaching–learning process, it is imperative to determine the developmental stage of each learner so as to understand the cognitive, affective, and psychomotor behavioral changes that are occurring. However, other important factors, such as past experiences, physical and emotional health status, and personal motivation, as well as stress, environmental conditions, and available support systems, affect a person's ability and readiness to learn.

The major question underlying the planning for educational experiences is: When is the most appropriate or best time to teach the learner? The answer is when the learner is ready. The teachable moment, as defined by Havighurst (1976), is that point in time when the learner is most receptive to learning. Nevertheless, nurses do not always have to wait for teachable moments to occur. They can actively create opportunities by taking an interest and paying attention to the needs of the learner and use their current

situation to increase awareness of the learner's need to change health behaviors (Hinkle, 2014; Lawson & Flocke, 2009).

The Developmental Stages of Childhood

Pedagogy is the art and science of helping children to learn (Knowles, 1990; Knowles, Holton, & Swanson, 2015). The different stages of childhood are divided according to what developmental theorists and educational psychologists define as specific patterns of behavior seen in particular phases of growth and development. This section reviews the teaching strategies to be used in the four stages of childhood in relation to the physical, cognitive, and psychosocial maturational levels of learners (Table 5–1).

Infancy (First 12 Months of Life) and Toddlerhood (1–2 Years of Age)

The field of growth and development is highly complex, and at no other time is physical, cognitive, and psychosocial maturation so changeable as during the very early years of childhood. Because of the dependency of members of this age group, the main focus of instruction for health maintenance of children is geared toward the parents, who are considered to be the primary learners rather than the very young child (Crandell et al., 2012; Palfrey et al., 2005; Santrock, 2013). However, the older toddler should not be excluded from healthcare teaching and can participate to some extent in the education process.

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

At no other time in life is physical maturation so rapid as during the period of development from infancy to toddlerhood (London, Ladewig, Davidson, Ball, & Bindler, 2013). Exploration of self and the environment is important in stimulating physical development (Crandell et al., 2012). Patient education must focus on teaching the parents of very young children the importance of stimulation, nutrition, the practice of safety measures to prevent illness and injury, and health promotion (Polan & Taylor, 2015).

Piaget (1951, 1952, 1976)—a noted expert in defining the key milestones in the cognitive development of children—labels the stage of infancy to toddlerhood as the *sensory-motor period*. During this stage, children learn through their senses. Motor activities promote toddlers' understanding of the world and an awareness of themselves as well as others' reactions in response to their own actions. Toddlers also have the capacity for basic reasoning, the beginnings of memory, and an elementary concept of **causality** (what causes something to happen). Also, they are oriented primarily to the here and now and have little tolerance for delayed gratification. The child who has lived with strict routines and plenty of structure has more of a grasp of time than the child who lives in an unstructured environment.

Children at this stage have short attention spans, are easily distracted, are egocentric in their thinking, and are not amenable to correction of their own ideas. Unquestionably,

Table 5–1 Stage-Appropriate Teaching Strategies

Learner	General Characteristics	Teaching Strategies	Nursing Interventions
Infancy–Toddlerhood			
Approximate age: Cognitive stage: Psychosocial stage:	Birth–2 years Sensorimotor Trust vs. mistrust (Birth–12 mo); Autonomy vs. shame and doubt (1–2 yr)	Dependent on environment Needs security Explores self and environment Natural curiosity	Orient teaching to caregiver Use repetition and imitation of information Stimulate all senses Provide physical safety and emotional security Allow play and manipulation of objects
Early Childhood			
Approximate age: Cognitive stage: Psychosocial stage:	3–5 years Preoperational Initiative vs. guilt	Egocentric Thinking precausal, concrete, literal Believes illness self-caused and punitive Limited sense of time Fears bodily injury Cannot generalize Animistic thinking (objects possess life or human characteristics) Centration (focus is on one characteristic of an object) Separation anxiety Motivated by curiosity Active imagination, prone to fears Play is his/her work	Use warm, calm approach Build trust Use repetition of information Allow manipulation of objects and equipment Give care with explanation Reassure not to blame self Explain procedures simply and briefly Provide safe, secure environment Use positive reinforcement Encourage questions to reveal perceptions/feelings Use simple drawings and stories Use play therapy, with dolls and puppets Stimulate senses: visual, auditory, tactile, motor
			Welcome active involvement Forge alliances Encourage physical closeness Provide detailed information Answer questions and concerns Ask for information on child's strengths/limitations and likes/dislikes

Middle and Late Childhood				
Approximate age: Cognitive stage: Psychosocial stage:	6–11 years Concrete operations Industry vs. inferiority	More realistic and objective Understands cause and effect Deductive/inductive reasoning Wants concrete information Able to compare objects and events Variable rates of physical growth Reasons syllogistically Understands seriousness and consequences of actions Subject-centered focus Immediate orientation	Encourage independence and active participation Be honest, allay fears Use logical explanation Allow time to ask questions Use analogies to make invisible processes real Establish role models Relate care to other children's experiences; compare procedures Use subject-centered focus Use play therapy Provide group activities Use drawings, models, dolls, painting, audio- and videotapes	Welcome active involvement Forge alliances Encourage physical closeness Provide detailed information Answer questions and concerns Ask for information on child's strengths/limitations and likes/dislikes
Adolescence				
Approximate age: Cognitive stage: Psychosocial stage:	12–19 years Formal operations Identity vs. role confusion	Abstract, hypothetical thinking Can build on past learning Reasons by logic and understands scientific principles Future orientation Motivated by desire for social acceptance Peer group important	Establish trust, authenticity Know their agenda Address fears/concerns about outcomes of illness Identify control focus Include in plan of care Use peers for support and influence Negotiate changes Focus on details Make information meaningful to life Ensure confidentiality and privacy Arrange group sessions Use audiovisuals, role play, contracts, reading materials Provide for experimentation and flexibility	Explore emotional and financial support Determine goals and expectations Assess stress levels Respect values and norms Determine role responsibilities and relationships Engage in 1:1 teaching without parents present, but with adolescent's permission Inform family of content covered

(continued)

Table 5–1 Stage-Appropriate Teaching Strategies (continued)

Learner	General Characteristics	Teaching Strategies	Nursing Interventions	
Young Adulthood				
Approximate age: Cognitive stage: Psychosocial stage:	20–40 years Formal operations Intimacy vs. isolation	Autonomous Self-directed Uses personal experiences to enhance or interfere with learning Intrinsic motivation Able to analyze critically Makes decisions about personal, occupational, and social roles Competency-based learner	Use problem-centered focus Draw on meaningful experiences Focus on immediacy of application Encourage active participation Allow to set own pace, be self-directed Organize material Recognize social role Apply new knowledge through role playing and hands-on practice	Explore emotional, financial, and physical support system Assess motivational level for involvement Identify potential obstacles and stressors
Middle-Aged Adulthood				
Approximate age: Cognitive stage: Psychosocial stage:	41–64 years Formal operations Generativity vs. self-absorption and stagnation	Sense of self well-developed Concerned with physical changes At peak in career Explores alternative lifestyles Reflects on contributions to family and society	Focus on maintaining independence and reestablishing normal life patterns Assess positive and negative past experiences with learning	Explore emotional, financial, and physical support system Assess motivational level for involvement Identify potential obstacles and stressors
		Reexamines goals and values Questions achievements and successes Has confidence in abilities Desires to modify unsatisfactory aspects of life	Assess potential sources of stress caused by midlife crisis issues Provide information to coincide with life concerns and problems	

Older Adulthood				
Approximate age: Cognitive stage: Psychosocial stage:	65 years and over Formal operations Ego integrity vs. despair	Cognitive changes: Decreased ability to think abstractly, process information Decreased short-term memory Increased reaction time Increased test anxiety Stimulus persistence (afterimage) Focuses on past life experiences	Use concrete examples Build on past life experiences Make information relevant and meaningful Present one concept at a time Allow time for processing/response (slow pace) Use repetition and reinforcement of information Avoid written exams Use verbal exchange and coaching Establish retrieval plan (use one or several clues) Encourage active involvement Keep explanations brief Use analogies to illustrate abstract information	Involve principal caregivers Encourage participation Provide resources for support (respite care) Assess coping mechanisms Provide written instructions for reinforcement Provide anticipatory problem solving (what happens if . . .)
		Sensory/motor deficits: Auditory changes Hearing loss, especially high-pitched tones, consonants (S, Z, T, F, and G), and rapid speech Visual changes Farsighted (needs glasses to read) Lenses become opaque (glare problem)	Speak slowly, distinctly Use low-pitched tones Avoid shouting Use visual aids to supplement verbal instruction	
		Smaller pupil size (decreased visual adaptation to darkness) Decreased peripheral perception Yellowing of lenses (distorts low-tone colors: blue, green, violet) Distorted depth perception Fatigue/decreased energy levels Pathophysiology (chronic illness)	Avoid glares, use soft white light Provide sufficient light Use white backgrounds and black print Use large letters and well-spaced print Avoid color coding with pastel blues, greens, purples, and yellows Increase safety precautions/provide safe environment Ensure accessibility and fit of prostheses (i.e., glasses, hearing aids) Keep sessions short Provide for frequent rest periods Allow for extra time to perform Establish realistic short-term goals	

they believe their own perceptions to be reality. Asking questions is the hallmark of this age group, and curiosity abounds as they explore places and things. They can respond to simple, step-by-step commands and obey such directives as “give Grandpa a kiss” or “go get your teddy bear” (Santrock, 2013).

Language skills increase rapidly during this period, and parents should be encouraged to talk with and listen to their child. As they progress through this phase, children begin to engage in fantasizing and make-believe play. Because they are unable to distinguish fact from fiction and have limited capacity for understanding cause and effect, disruptions in their routine during illness or hospitalizations, along with the need to separate from parents, are very stressful events for the toddler (London et al., 2013).

According to Erikson (1963), the noted authority on psychosocial development, the period of infancy is one of *trust versus mistrust*. During this time, children must work through their first major dilemma of developing a sense of trust with their primary caretaker. As the infant matures into toddlerhood, *autonomy versus shame and doubt* emerges as the central issue. During this period of psychosocial growth, toddlers must learn to balance feelings of love and hate and learn to cooperate and control willful desires (Table 5–2).

Children progress sequentially through accomplishing the tasks of developing basic trust in their environment to reaching increasing levels of independence. Children may have difficulty in making up their minds, and, aggravated by personal and external limits, they may express their level of frustration and feelings of ambivalence in words and behaviors, such as by engaging in temper tantrums to release tensions (Falvo, 2011). With peers, play is a parallel activity, and it is not unusual for them to end up in tears because they have not yet learned about tact, fairness, or rules of sharing (Babcock & Miller, 1994; Polan & Taylor, 2015).

Table 5–2 Erikson’s Nine Stages of Psychosocial Development

Developmental Stages	Psychosocial Stages	Strengths
Infancy	Trust versus mistrust	Hope
Toddlerhood	Autonomy versus shame and doubt	Will
Early childhood	Initiative versus guilt	Purpose
Middle and late childhood	Industry versus inferiority	Competence
Adolescence	Identity versus role confusion	Fidelity
Young adulthood	Intimacy versus isolation	Love
Middle-aged adulthood	Generativity versus self-absorption and stagnation	Care
Older adulthood	Ego integrity versus despair	Wisdom
Very old age (late 80s and beyond)	Hope and faith versus despair	Wisdom and transcendence

Data from Aharoni, J. H. (1996). Strategies for teaching elders from a human development perspective. *Diabetes Educator*, 22(1), 48; and Crandell, C. H., & Vander Zanden, J. W. (2012). *Human development* (11th ed.). New York, NY: McGraw-Hill.

TEACHING STRATEGIES

Patient education for infancy through toddlerhood is usually not illness related. Time is spent teaching parents about aspects of normal development, safety, health promotion, and disease prevention. When the child is ill, the first priority before teaching is to assess the parents' and child's anxiety levels and to help them cope with their feelings of stress related to uncertainty and guilt about the cause of the illness or injury. Anxiety on the part of the child and parents can adversely affect their readiness to learn (see Chapter 4 on factors influencing readiness to learn).

Although teaching activities primarily are directed to the main caregiver(s), toddlers are capable of some degree of understanding procedures that they may experience. Therefore, it is imperative that a primary nurse is assigned to establish a relationship with the child and parents to provide consistency in the teaching-learning process and to help reduce the child's fear of strangers. Parents should be present whenever possible during teaching and learning activities to allay stress, which could be compounded by separation anxiety (London et al., 2013).

Ideally, health teaching should take place in an environment familiar to the child, such as the home or daycare center. When the child is hospitalized, the environment selected for teaching and learning sessions should be as safe and secure as possible, such as the child's bed or the playroom, to increase the child's sense of feeling protected.

Movement is an important mechanism by which toddlers communicate. Immobility tends to increase children's anxiety by restricting activity. Nursing interventions that promote children's use of gross motor abilities and that stimulate their visual, auditory, and tactile senses should be chosen whenever possible. The approach to children should be warm, honest, calm, accepting, and matter-of-fact. A smile, a warm tone of voice, a gesture of encouragement, or a word of praise goes a long way in attracting children's attention and helping them adjust to new circumstances. Fundamental to the child's response is how the parents respond to healthcare personnel and medical interventions.

The following teaching strategies are suggested to promote the child's natural desire for play and his or her need for active participation and sensory experiences.

For Short-Term Learning

- Read simple stories from books with lots of pictures.
- Use dolls and puppets to act out feelings and behaviors.
- Use simple audiotapes with music and videotapes with cartoon characters.
- Role play to bring the child's imagination closer to reality.
- Give simple, concrete, nonthreatening explanations.
- Perform procedures on a teddy bear or doll first to help the child anticipate what an experience will be like.
- Allow the child something to do—squeeze your hand, hold a Band-Aid, sing a song, cry if it hurts.
- Keep teaching sessions brief (no longer than about 5 minutes each) because of the child's short attention span.
- Cluster teaching sessions close together so that children can remember what they learned.

- Avoid analogies and explain things in straightforward and simple terms because children take their world literally and concretely.
- Pace teaching according to the child's responses and level of attention.

For Long-Term Learning

- Focus on rituals, imitation, and repetition of information to hold the child's attention.
- Use reinforcement as an opportunity for children to learn through practice.
- Use games as a way for children to learn about the world and test their ideas.
- Encourage parents to act as role models because they influence the child's development of attitudes and behaviors.

Early Childhood (3–5 Years of Age)

Preschool children's identity becomes clearer, and their world expands to involve others outside of the family. Children in this developmental category acquire new behaviors that give them more independence from their parents and allow them to care for themselves. Learning during this time period occurs through interactions with others and through mimicking or modeling the behaviors of playmates and adults (Crandell et al., 2012; Santrock, 2013).

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

Fine and gross motor skills become increasingly more refined and coordinated so that children are able to carry out activities of daily living with greater independence (Crandell et al., 2012; Santrock, 2013). Although their efforts are more coordinated, supervision of activities is still required because they lack judgment in carrying out the skills they have developed.

The early childhood stage of cognitive development is labeled by Piaget (1951, 1952, 1976) as the *preoperational period*. The young child continues to be self-centered and is essentially unaware of others' thoughts or the existence of others' points of view. Thinking remains literal and concrete—they believe what is seen and heard (Santrock, 2013).

Preschool children are very curious, can think intuitively, and pose questions about almost anything. They want to know the reasons, cause, and purpose for everything (the why) but are unconcerned at this point with the process (the how). Children in this cognitive stage mix fact and fiction, tend to generalize, think magically, develop imaginary playmates, and believe they can control events with their thoughts (Crandell et al., 2012; Santrock, 2013).

The young child also continues to have a limited sense of time. For children of this age, being made to wait 15 minutes before they can do something can feel like an eternity. They do, however, understand the timing of familiar events in their daily lives, such as when breakfast or dinner is eaten and when they can play or watch their favorite television program. As they begin to understand and appreciate the world around them, their attention span (ability to focus) begins to lengthen such that they can usually remain quiet long enough to listen to a song or hear a short story (Santrock, 2013).

In the preschool stage, children have an understanding of their bodies. They can name external body parts but do not understand the function of internal organs (Kotchabhakdi, 1985). Children see illness and hospitalization as a punishment for something they did wrong (London et al., 2013).

Erikson (1963) has labeled the psychosocial maturation level in early childhood as the period of *initiative versus guilt*. Children take on tasks for the sake of being involved and on the move (Table 5–2). Excess energy and a desire to dominate may lead to frustration and anger on their part. They show evidence of expanding imagination and creativity, are impulsive in their actions, and are curious about almost everything they see and do. Their growing imagination can lead to many fears—of separation, disapproval, pain, punishment, and aggression from others. Loss of body integrity is the preschool child's greatest threat, which significantly affects his or her willingness to interact with healthcare personnel (Falvo, 2011; Poster, 1983; Vulcan, 1984).

In this phase of development, children begin interacting with playmates rather than just playing alongside one another. Appropriate social behaviors demand that they learn to wait for others, give others a turn, and recognize the needs of others. Play in the mind of a child is equivalent to the work performed by adults. Play can be as equally productive as adult work and is a means for self-education of the physical and social world (Ormrod, 2012). It helps the child act out feelings and experiences so as to master fears, develop role skills, and express joys, sorrows, and hostilities. Through play, children in the preschool years also begin to share ideas and imitate parents of the same sex. Role playing is typical of this age as the child attempts to learn the responsibilities of family members and others in society (Santrock, 2013).

TEACHING STRATEGIES

The nurse's interactions with preschool children and their parents are often sporadic, usually occurring during occasional well-child visits to the pediatrician's office or when minor medical problems arise. During these interactions, the nurse should take every opportunity to teach parents about health promotion and disease and accident prevention measures, to provide guidance regarding normal growth and development, and to offer instruction about medical recommendations related to illness or disability. Parents can help the nurse in working with children in this developmental phase, and they should be included in all aspects of the educational plan and the actual teaching experience. Parents can answer questions about children's disabilities, likes and dislikes, and their favorite toys and games—all of which may affect their ability to learn (Hussey & Hirsh, 1983; Ryberg & Merrifield, 1984; Woodring, 2000).

Children's fear of pain and bodily harm is uppermost in their minds, whether they are well or ill. Because young children have fantasies and active imaginations, it is most important for the nurse to reassure them and allow them to express their fears openly (Heiney, 1991). Nurses need to choose their words carefully when describing procedures and interventions. Preschoolers are familiar with many words, but using terms such as *cut* and *knife* is frightening to them. Instead, nurses should use less threatening words such as *fix*, *sew*, and *cover up the hole*. *Band-Aids* is a much more understandable

term than *dressings*, and bandages are often thought by children to have magical healing powers (Babcock & Miller, 1994).

Although the young child has begun to have increasing contact with the outside world and is usually able to interact more comfortably with others, teaching should be directed toward the significant adults in a child's life. Family members can provide support to the child, substitute as the teacher if their child is reluctant to interact with the nurse, and reinforce teaching. They are the learners who will assist the child in achieving desired health outcomes (Kaakinen, Gedaly-Duff, Coehlo, & Hanson, 2010; Whitener, Cox, & Maglich, 1998).

The following specific teaching strategies are recommended:

For Short-Term Learning

- Provide physical and visual stimuli because language ability is still limited.
- Keep teaching sessions short (no more than 15 minutes) and scheduled sequentially at close intervals so that information is not forgotten.
- Relate information needs to activities and experiences familiar to the child.
- Encourage the child to participate by choosing the instructional methods and tools, such as playing with dolls or reading a story, which promotes active involvement and helps to establish nurse–client rapport.
- Arrange small-group sessions with peers as a way to make teaching less threatening and more fun.
- Give praise and approval, through both verbal expressions and nonverbal gestures, which are real motivators for learning.
- Give rewards, such as badges or small toys, to reinforce learning skills.
- Allow the child to touch equipment and play with replicas or dolls to learn about body parts. Special kidney dolls, ostomy dolls with stomas, or orthopedic dolls with splints and tractions provide opportunities for hands-on experience.
- Use storybooks to help the child identify with particular people and situations.

For Long-Term Learning

- Enlist the help of parents to be role models of healthy habits, such as practicing safety measures and eating a balanced diet.
- Reinforce positive health behaviors and new skills learned.

Middle and Late Childhood (6–11 Years of Age)

In middle and late childhood, children have progressed in their physical, cognitive, and psychosocial skills to the point where most begin formal training in structured school systems. They approach learning with excitement of what is to come, and their minds are open to new and varied ideas. They are motivated to learn because of their natural curiosity and their desire to understand more about themselves, their bodies, the environment, and their world (Whitener et al., 1998). This stage is a period of great change for them, when attitudes, values, and perceptions of themselves, their society, and the world are shaped and expanded (Santrock, 2013).

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

The gross- and fine-motor abilities of school-aged children become increasingly more coordinated so that they are able to control their movements. Involvement in activities helps them to fine-tune their psychomotor skills. Physical growth during this phase is highly variable, with the rate of development differing from child to child (Crandell et al., 2012; Santrock, 2013).

Piaget (1951, 1952, 1976) labeled the cognitive development in middle and late childhood as the period of *concrete operations*. During this time, logical, rational thought processes and the ability to reason inductively and deductively develop. At this stage, they begin to use **syllogistic reasoning**—that is, they can consider two premises and draw a logical conclusion from them (Elkind, 1984; Steegen & De Neys, 2012). In addition, concepts are mastered, such as **conservation**, when they realize that a certain quantity of liquid is the same amount whether it is poured into a tall, thin glass or into a short, squat one (Snowman & McCown, 2015).

The skills of memory, decision making, insight, and problem solving are all more fully developed (Protheroe, 2007). They are able to classify objects and systems, use sarcasm, and communicate more sophisticated thoughts (Snowman & McCown, 2015). Though they can separate fantasy from reality, thinking remains quite literal, with only a vague understanding of abstractions. Early on in this phase, children are reluctant to do away with magical thinking in exchange for reality thinking. They cling to cherished beliefs, such as the existence of Santa Claus or the tooth fairy, for the fun and excitement that the fantasy provides them, even when they have information that proves contrary to their beliefs.

Children passing through elementary and middle schools have developed the ability to concentrate for extended periods, can tolerate waiting for what they want, and can generalize from experience (Crandell et al., 2012). They understand time and have some interest in the future, yet have a vague appreciation for how their actions can have implications at a later time.

As part of the shift from **precausal thinking** (preschool child unaware of what causes something) to **causal thinking**, the school-age child begins to incorporate the idea that illness is related to cause and effect and can recognize that germs create disease. Illness is thought of in terms of social consequences and role alterations, such as the realization that they will miss school and outside activities, people will feel sorry for them, and they will be unable to maintain their usual routines (Banks, 1990; Koopman, Baars, Chaplin, & Zwinderman, 2004).

Differences exist in children's reasoning skills based on their experiences with illness. Children suffering from chronic diseases have been found to have more sophisticated understanding of illness causality and body functioning than do their healthy peers (Piaget, 1976). However, the stress and anxiety resulting from having to live with a chronic illness or disability can interfere with a child's general cognitive performance (Perrin, Sayer, & Willett, 1991).

Erikson (1963) characterized school-aged children's psychosocial stage of life as *industry versus inferiority*. During this period, children begin to gain an awareness of

their unique talents and the special qualities that distinguish them from one another (Table 5–2). They begin to establish their self-concept as members of a social group larger than their own nuclear family and start to compare their own family's values with those of the outside world.

With less dependency on family, they extend their intimacy to include special friends and social groups (Santrock, 2013). Relationships with peers and adults external to the home environment become important influences in their development of self-esteem and their susceptibility to social forces outside the family unit. School-aged children fear failure and being left out of groups. They worry about their inabilities and compare their own accomplishments to those of their peers.

TEACHING STRATEGIES

Woodring (2000) emphasizes the importance of following sound educational principles with the child and family, such as identifying individual learning styles, determining readiness to learn, and taking into account their learning needs and abilities to achieve positive health outcomes. Given their increased ability to comprehend information and their desire for active involvement and control of their lives, it is very important to include school-aged children in patient education efforts. The nurse must explain illness, treatment plans, and procedures in simple, logical terms in accordance with the child's level of understanding and reasoning.

Although children at this stage are able to think logically, their ability for abstract thought remains limited. Therefore, teaching should be presented in concrete terms with step-by-step instructions (Pidgeon, 1985; Whitener et al., 1998). Observe children's reactions and listen to their verbal feedback to confirm that information shared has not been misinterpreted or confused.

Parents should be informed of what their child is being taught. Teaching parents directly is encouraged so that they may be involved in fostering their child's independence, providing emotional support and physical assistance, and giving guidance regarding the child's care management. Siblings and peers should also be considered as sources of support (Hussey & Hirsh, 1983; Santrock, 2013).

Education for health maintenance, health promotion, and disease and accident prevention is most likely to occur in the school system. The school nurse, in particular, is in an excellent position to coordinate the efforts of all other providers. According to *Healthy People 2020* (U.S. Department of Health and Human Services [USDHHS], 2014b), health promotion regarding healthy eating and weight status, exercise, sleep, and prevention of injuries as well as avoidance of tobacco, alcohol, and drug use are just a few examples of objectives intended to improve the health of American children. The school nurse can play a vital role in providing education to the school-aged child to meet these goals (Leifer & Hartston, 2004) and has the opportunity to educate children not only in a group when teaching a class but also on a one-to-one basis.

The specific conditions that may come to the attention of the nurse in caring for children at this phase of development include problems such as behavioral disorders, hyperactivity, learning disorders, obesity, diabetes, asthma, and enuresis. Extensive

teaching may be needed to help children and parents understand a particular condition and learn how to overcome or deal with it.

The need to sustain or bolster their self-image, self-concept, and self-esteem requires that children be invited to participate, to the extent possible, in planning for and carrying out learning activities (Snowman & McCown, 2015). Because of children's fears of falling behind in school, being separated from peer groups, and being left out of social activities, teaching must be geared toward fostering normal development despite any limitations that may be imposed by illness or disability (Falvo, 2011; Leifer & Hartston, 2004).

Children in middle and late childhood are used to the structured, direct, and formal learning in the school environment and are receptive to a similar approach when hospitalized or confined at home. The following teaching strategies are suggested when caring for children in this developmental stage of life:

For Short-Term Learning

- Allow school-aged children to take responsibility for their own health care because they are not only willing to use but also capable of using equipment with accuracy.
- Teaching sessions can be extended to last as long as 30 minutes each because school-aged children are better able to focus and retain information. However, lessons should be spread apart to allow for comprehension of large amounts of content and to provide opportunity for the practice of newly acquired skills between sessions.
- Use diagrams, models, pictures, digital media, printed materials, and computers as adjuncts to various teaching methods.
- Choose audiovisual and printed materials that show peers undergoing similar procedures or facing similar situations.
- Clarify any scientific terminology and medical jargon used.
- Use analogies as an effective means of providing information in meaningful terms, such as "Having a chest X-ray is like having your picture taken" or "White blood cells are like police cells that can attack and destroy infection."
- Use one-to-one teaching sessions as a method to individualize learning relevant to the child's own experiences.
- Provide time for clarification, validation, and reinforcement of what is being learned.
- Use group teaching sessions with others of similar age and with similar problems or needs to help children avoid feelings of isolation and to assist them in identifying with their own peers.
- Prepare children for procedures and interventions well in advance to allow them time to cope with their feelings and fears, to anticipate events, and to understand what the purpose of each procedure is, how it relates to their condition, and how much time it will take.
- Encourage participation in planning for procedures and events because active involvement helps the child to assimilate information more readily.
- Provide much-needed nurturance and support, always keeping in mind that young children are not just small adults.

For Long-Term Learning

- Help school-aged children acquire skills that they can use to assume responsibility for carrying out treatment regimens on an ongoing basis with minimal assistance.
- Assist them in learning to maintain their own well-being and prevent illnesses from occurring.

Research for the *Healthy People 2020* report suggests that lifelong health attitudes and behaviors begin in the early childhood phase of development and remain consistent into late childhood (USDHHS, 2014b).

Adolescence (12–19 Years of Age)

Adolescence marks the transition from childhood to adulthood. During this prolonged and very change-filled period of time, many adolescents and their families experience much turmoil. How adolescents think about themselves and the world significantly influences many healthcare issues facing them, from anorexia to obesity. Teenage thought and behavior give insight into the etiology of some of the major health problems of this group of learners (Elkind, 1984).

Adolescents are known to be among the nation's most at-risk populations (Ares, Kuhns, Dogra, & Karnik, 2015). Most recently, *Healthy People 2020* identified “Adolescent Health” as a new topic area, with objectives focused on interventions to promote health as well as reduce the risks associated with this population (USDHHS, 2014b). For patient education to be effective, an understanding of the characteristics of the adolescent phase of development is crucial (Ackard & Neumark-Sztainer, 2001; Michaud, Stronski, Fonseca, & MacFarlane, 2004; Ormrod, 2012).

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

Adolescents vary greatly in their biological, psychological, social, and cognitive development. From a physical maturation standpoint, they must adapt to rapid, dramatic, and significant bodily changes, which can temporarily result in clumsiness and poorly coordinated movement. Alterations in physical size, shape, and function of their bodies, along with the appearance and development of secondary sex characteristics, bring about a significant preoccupation with their appearance and a strong desire to express sexual urges (Crandell et al., 2012; Santrock, 2013).

Piaget (1951, 1952, 1976) termed this stage of cognitive development as the period of *formal operations*. Adolescents are capable of abstract thought and logical thinking that is both inductive and deductive. Adolescents can debate various points of view, understand cause and effect, comprehend complex explanations, imagine possibilities, and respond appropriately to multiple-step directions (Aronowitz, 2006; Crandell et al., 2012).

With the capacity for formal operational thought, teenagers can become obsessed with what others are thinking and begin to believe that everyone is focusing on the same things they are—namely, themselves and their activities. Elkind (1984) labels this belief as the **imaginary audience**, which has considerable influence over an adolescent's behavior.

The imaginary audience explains why adolescents, on the one hand, are self conscious and may feel embarrassed because they believe everyone is looking at them and, on the other hand, desire to be looked at and thought about because this attention confirms their sense of being special and unique (Crandell et al., 2012; Santrock, 2013; Snowman & McCown, 2015).

Adolescents are able to understand the concept of health and illness, the multiple causes of diseases, and the influence of variables on health status. They can also identify health behaviors, although they may reject practicing them or begin to engage in risk-taking behaviors because of the social pressures they receive from peers as well as their feelings of invincibility (Ormrod, 2012). Elkind (1984) labels this second type of social thinking as the **personal fable**. The **personal fable** leads adolescents to believe that they are invulnerable—other people grow old and die, but not them. Unfortunately, this leads teenagers to believe they are cloaked in an invisible shield that will protect them from bodily harm despite any risks to which they may subject themselves. They can understand implications of future outcomes, but their immediate concern is with the present. Although children in the mid- to late-adolescent period appear to be aware of the risks they take, it is important, nevertheless, to recognize that this population continues to need support and guidance (Brown, Teufel, & Birch, 2007).

Erikson (1968) has identified the psychosocial dilemma adolescents face as one of *identity versus role confusion*. Children in this age group indulge in comparing their self-image with an ideal image (Table 5–2). Adolescents find themselves in a struggle to establish their own identity, match their skills with career choices, and determine their self. They work to separate themselves from their parents so that they can emerge as more distinct individual personalities. Teenagers have a strong need for peer acceptance and peer support. Their concern over personal appearance and their need to look and act like their peers drive them to conform to the dress and behavior of this age group. This usually contradicts values of their parents' generation. Conflict, toleration, stereotyping, or alienation often characterizes the relationship between adolescents and their parents and other authority figures (Hines & Paulson, 2006).

Adolescents demand personal space, control, privacy, and confidentiality. To them, illness, injury, disability, and hospitalization mean dependency, loss of identity, a change in body image and functioning, bodily embarrassment, confinement, and separation from peers. Knowledge alone of how to protect their health and prevent disease and injury is not enough; they need coping skills for successful completion of this stage of development (Grey, Kanner, & Lacey, 1999).

TEACHING STRATEGIES

Challenges adolescents might face include chronic illness, a range of disabilities as a result of injury, or psychological problems as a result of depression or physical and/or emotional maltreatment. In addition, adolescents are considered at high risk for teen pregnancy, the effects of poverty, drug or alcohol abuse, and sexually transmitted diseases. The three leading causes of death in this age group are accidents, homicide, and suicide (Kochanek, Xu, Murphy, Minino, & Kung, 2011; London et al., 2013).

The educational needs of adolescents are broad and varied. Healthy teens have difficulty imagining themselves as sick or injured. Those with an illness or disability often comply poorly with medical regimens and continue to indulge in risk-taking behaviors. Because of their preoccupation with body image and functioning and the perceived importance of peer acceptance and support, they view health recommendations as a threat to their autonomy and sense of control.

Probably the greatest challenge to the nurse responsible for teaching the adolescent, whether healthy or ill, is to be able to develop a mutually respectful, trusting relationship (Brown et al., 2007). Adolescents are able to participate fully in all aspects of learning, but they need privacy, understanding, an honest and straightforward approach, and unqualified acceptance in the face of their fears of embarrassment and of losing independence, identity, and self-control (Ackard & Neumark-Sztainer, 2001). The existence of an imaginary audience and personal fable can contribute to the exacerbation of existing problems or cause new ones. Adolescents with disfiguring disabilities may show signs of depression and lack of will. For the first time, they look at themselves from the standpoint of others. Teenagers may fail to use contraceptives because the personal fable tells them that other people will get pregnant or get venereal disease, but not them. Teenagers with chronic illnesses may stop taking prescribed medications because they feel they can manage without them to prove to others that they are well.

The following teaching strategies are suggested when caring for adolescents:

For Short-Term Learning

- Use one-to-one instruction to ensure confidentiality of sensitive information.
- Choose peer-group discussion sessions as an effective approach to deal with health topics such as smoking, alcohol and drug use, safety measures, obesity, and teenage sexuality.
- Adolescents benefit from meeting others who have the same concerns or who have successfully dealt with problems similar to theirs.
- Use face-to-face or computer group discussion, role playing, and gaming as methods to clarify values and problem solve, which feed into the teenager's need to belong and to be actively involved. Getting groups of peers together in person or virtually can be very effective in helping teens confront health challenges and change behavior (Snowman & McCown, 2015).
- Use instructional tools, such as models, diagrams, and detailed written materials as well as different types of technology, which are comfortable approaches to learning for adolescents.
- Clarify any scientific terminology and medical jargon used.
- Allow participation in decision making. Include adolescents in formulating teaching plans related to teaching strategies and expected outcomes to meet their needs for autonomy.
- Suggest options so that they feel they have a choice about courses of action.
- Give a rationale for all that is said and done to help adolescents feel a sense of control.

- Approach them with respect, tact, openness, and flexibility to elicit their attention and encourage their involvement.
- Expect negative responses, which are common when their self-image and self-integrity are threatened.
- Avoid confrontation and acting like an authority figure. Acknowledge their thoughts and then casually suggest an alternative viewpoint or choices, such as “Yes, I can see your point, but what about the possibility of . . .?”

For Long-Term Learning

- Accept adolescents’ personal fable and imaginary audience as valid.
- Acknowledge that their feelings are very real.
- Allow them the opportunity to test their own convictions.

Although much of patient education should be done directly with adolescents to respect their right to individuality, privacy, and confidentiality, teaching effectiveness may be enhanced to some extent by including their families (Brown et al., 2007). Because of the ambivalence the adolescent feels, teaching must consider the learning needs of the adolescent as well as the parents (Ackard & Neumark-Sztainer, 2001; Falvo, 2011).

The Developmental Stages of Adulthood

Andragogy, the term used by Knowles (1990) to describe his theory of adult learning, is the art and science of teaching adults. Education within this framework is more learner centered and less teacher centered; that is, instead of one party giving information to another, the power relationship between the teacher and the adult learner is more equal than in a teacher-centered framework (Curran, 2014). The concept of andragogy has served for years as a useful framework in guiding instruction for patient teaching and for continuing education of staff.

Based on emerging research and theory from a variety of disciplines, Knowles and colleagues (2015) discussed new perspectives on andragogy that have refined and strengthened the core adult learning principles that Knowles originally proposed. The following basic assumptions about Knowles’s framework have major implications for planning, implementing, and evaluating teaching programs for adults as the individual matures:

1. The adult’s self-concept moves from one of being a dependent personality to being an independent, self-directed human being.
2. He or she accumulates a growing reservoir of previous experience that serves as a rich resource for learning.
3. Readiness to learn becomes increasingly oriented to the developmental tasks of social roles.
4. Adults are best motivated to learn when a need arises in their life situation that will help them satisfy their desire for information.
5. Adults learn for personal fulfillment such as self-esteem or an improved quality of life.

The period of adulthood constitutes three major developmental stages—the young adult stage, the middle-aged adult stage, and the older adult stage (Table 5–1). The emphasis for adult learning revolves around differentiation of life tasks and social roles with respect to employment, family, and other activities beyond the responsibilities of home and career (Boyd, Gleit, Graham, & Whitman, 1998). The prime motivator to learn in adulthood is being able to apply knowledge and skills for the solution of immediate problems. Adults must clearly perceive the relevancy of acquiring new behaviors or changing old ones for them to be willing and eager to learn. In the beginning of any teaching–learning encounter, therefore, adults want to know how they will benefit from their efforts at learning (Knowles et al., 2015).

Typical characteristics of adult learners include being self-directed and independent in seeking information. Their past experiences form the basis for further learning, and they already have a rich resource of stored information from which to draw. They also grasp relationships quickly, in general, and they do not tolerate learning isolated facts. However, because adults already have established ideas, values, and attitudes, they also tend to be more resistant to change.

In addition, adults must overcome obstacles to learning, such as the burden of family, work, and social responsibilities, which can diminish their time, energy, and concentration for learning. Furthermore, some adults may feel too old or too out of touch with the formal learning of the school years, and if past experiences with learning were not positive, they may shy away from assuming the role of learner for fear of the risk of failure (Boyd et al., 1998). Although nurses can consider adult learners as autonomous, self-directed, and independent, these individuals often want and need structure, clear and concise specifics, and direct guidance. As such, Taylor, Marienau, and Fiddler (2000) label adults as “paradoxical” learners.

Only recently has it been recognized that learning is a lifelong process that begins at birth and does not cease until the end of life. Growth and development are a process of becoming, and learning is a key part of that process. As a person matures, learning is a significant and continuous task to maintain and enhance oneself (Knowles, 1990; Knowles et al., 2015). As the following discussion clearly reveals, there are differences in the characteristics of adult learners within the three developmental stages of adulthood.

Young Adulthood (20–40 Years of Age)

Young adulthood is a time for establishing long-term, intimate relationships with other people, choosing a lifestyle and adjusting to it, deciding on an occupation, and managing a home and family. All of these decisions lead to changes in the lives of young adults that can be a potential source of stress for them (Santrock, 2013).

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

During this period, physical abilities for most young adults are at their peak, and the body functions very well (Crandell et al., 2012). The cognitive capacity of young adults is fully developed, but with maturation, they continue to accumulate new knowledge and skills from an expanding reservoir of formal and informal experiences. Young adults

continue in the *formal operations* stage of cognitive development (Piaget, 1951, 1952, 1976). These experiences add to their perceptions, allow them to generalize to new situations, and improve their abilities to critically analyze, problem solve, and make decisions about their personal, occupational, and social roles. Their interests for learning are oriented toward those experiences that are relevant for immediate application to problems and tasks in their daily lives (Crandell et al., 2012).

Erikson (1963) describes the young adult's stage of psychosocial development as the period of *intimacy versus isolation*. During this time, individuals work to establish trusting, satisfying, and permanent relationships with others (Table 5–2). They strive to make commitments to others in their personal, occupational, and social lives. As part of this effort, they seek to maintain the independence and self-sufficiency they worked to obtain in adolescence.

Young adults face many challenges as they take steps to control their lives. Many of the events they experience are happy and growth promoting from an emotional and social perspective, but they also can prove disappointing and psychologically draining. The new experiences and multiple decisions young adults must make regarding choices for a career, marriage, parenthood, and higher education can be quite stressful. Young adults realize that the avenues they pursue will affect their lives for years to come (Santrock, 2013).

TEACHING STRATEGIES

Young adults are generally very healthy and tend to have limited exposure to health professionals. Their contact with the healthcare system is usually for pre-employment, college, or sport physicals; for a minor episodic complaint; or for pregnancy and contraceptive care (Orshan, 2008). At the same time, young adulthood is a crucial period for the establishment of behaviors that help individuals to lead healthy lives, both physically and emotionally. Many of the choices young adults make, if not positive ones, will be difficult to change later. As Havighurst (1976) points out, this stage is full of teachable moments, and nurses must take advantage of every opportunity to promote healthy behaviors with this population (Hinkle, 2014).

The nurse as teacher must find a way of reaching and communicating with this audience about health promotion and disease prevention measures. Readiness to learn does not always require the nurse to wait for it to develop. Rather, such readiness can be actively fostered through experiences the nurse creates. Knowledge of the individual's lifestyle can provide cues to concentrate on when determining specific aspects of education for the young adult. For example, if the individual is planning marriage, then establishing healthy relationships, family planning, contraception, and parenthood are potential topics to address during teaching (Orshan, 2008).

The motivation for adults to learn comes in response to internal drives, such as need for self-esteem, a better quality of life, or job satisfaction, and in response to external motivators, such as job promotion, more money, or more time to pursue outside activities (Babcock & Miller, 1994; Crandell et al., 2012). Also, when young adults are faced with acute or chronic illnesses or disabilities, many of which may significantly alter their

lifestyles, they are stimulated to learn so as to maintain their independence and return to normal life patterns. It is likely they will view an illness or disability as a serious setback to achieving their immediate or future life goals.

Because adults typically desire active participation in the educational process, whenever possible it is important for the nurse to allow them the opportunity for participation in health education decision making. They should be encouraged, as Knowles (1990) suggested, to select what to learn (objectives), how they want material to be presented (teaching methods and instructional tools), and which indicators will be used to determine the achievement of learning goals (evaluation). Also, it must be remembered that adults bring to the teaching–learning situation a variety of experiences that can serve as the foundation on which to build new learning. Consequently, it is important to draw on their personal experiences to make learning relevant, useful, and motivating. Young adults tend to be reluctant to expend the resources of time, money, and energy to learn new information, skills, and attitudes if they do not see the content of instruction as relevant to their current lives or anticipated problems (Collins, 2004; Knowles et al., 2015).

Teaching strategies must be directed at encouraging young adults to seek information that expands their knowledge base, helps them control their lives, and bolsters their self-esteem. Whether they are well or ill, young adults need to know about the opportunities available for learning. These educational opportunities must be convenient and accessible to them in terms of their lifestyle with respect to work and family responsibilities. Because they tend to be very self-directed in their approach to learning, young adults do well with written patient education materials and audiovisual tools, including computer-assisted instruction, that allow them to self-pace their learning independently. Group discussion is an attractive method for teaching and learning because it provides young adults with the opportunity to interact with others of similar age and in similar situations, such as in parenting groups, prenatal classes, exercise classes, or marital adjustment sessions.

Middle-Aged Adulthood (41–64 Years of Age)

Just as adolescence is the link between childhood and adulthood, so midlife is the transition period between young adulthood and older adulthood. During middle age, many individuals are highly accomplished in their careers, their sense of who they are is well developed, their children are grown, and they have time to share their talents, serve as mentors for others, and pursue new or latent interests. This stage is a time for them to reflect on the contributions they have made to family and society, relish in their achievements, and reexamine their goals and values.

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

During this stage of maturation, a number of physiological changes begin to take place. Skin and muscle tone decreases, metabolism slows down, body weight tends to increase, endurance and energy levels lessen, hormonal changes bring about a variety of symptoms, and hearing and visual acuity start to diminish. All these physical changes and others

affect middle-aged adults' self-image, ability to learn, and motivation for learning about health promotion, disease prevention, and maintenance of health (Crandell et al., 2012).

The ability to learn from a cognitive standpoint remains at a steady state for middle-aged adults as they continue in Piaget's (1951, 1952, 1976) *formal operations* stage of cognitive development. For many adults, the accumulation of life experiences and their proven record of accomplishments often allow them to come to the teaching-learning situation with confidence in their abilities as learners. However, if their past experiences with learning were minimal or not positive, their motivation likely will not be at a high enough level to easily facilitate learning. Physical changes, especially with respect to hearing and vision, may impede learning as well (Santrock, 2013).

Erikson (1963) labels this psychosocial stage of adulthood as *generativity versus self-absorption and stagnation*. Midlife marks a point at which adults realize that half of their potential life has been spent. This realization may cause them to question their level of achievement and success. Middle-aged adults, in fact, may choose to modify aspects of their lives that they perceive as unsatisfactory or adopt a new lifestyle.

Developing concern for the lives of their grown children, recognizing the physical changes in themselves, dealing with the new role of being a grandparent, and taking responsibility for their own parents whose health may be failing are all factors that may cause adults in this cohort to become aware of their own mortality (Table 5–2). At this time, middle-aged adults may either feel greater motivation to follow health recommendations more closely or—just the opposite—may deny illnesses or abandon healthy practices altogether (Falvo, 2011).

The later years of middle adulthood are the phase in which productivity and contributions to society are valued. They offer an opportunity to feel a real sense of accomplishment from having cared for others—children, spouse, friends, parents, and colleagues for whom adults have served as mentors. During this time, individuals often become oriented away from self and family and toward the larger community. New social interests and leisure activities are pursued as they find more free time from family responsibilities and career demands. As they move toward their retirement years, individuals begin to plan for what they want to do after culminating their career. This transition sparks their interest in learning about financial planning, alternative lifestyles, and ways to remain healthy as they approach the later years (Crandell et al., 2012).

TEACHING STRATEGIES

When teaching members of this age group, the nurse must be aware of their potential sources of stress, the health risk factors associated with this stage of life, and the concerns typical of midlife. Stress may interfere with middle-aged adults' ability to learn or may be a motivational force for learning (Leifer & Hartston, 2004). Those who have lived healthy and productive lives are often motivated to make contact with health professionals to ensure maintenance of their healthy status. Such contacts represent an opportune time for the nurse to reach out to assist these middle-aged adults in coping with stress and maintaining optimal health status. Many need and want information related to chronic illnesses that can arise at this phase of life (Orshan, 2008).

Adult learners need to be reassured or complimented on their learning competencies. Reinforcement for learning is internalized and serves to reward them for their efforts. Teaching strategies for learning are similar to those methods and tools used for instructing the young adult learner, but the content is different to coincide with the concerns and problems specific to this group of learners.

Older Adulthood (65 Years of Age and Older)

The percentage of middle-aged adults in the United States has tripled since 1900, and in 2011, the first wave of baby boomers turned 65 years of age. Older persons constitute approximately 13% of the U.S. population now, but in the next 30 years, the number of those older than age 65 will increase to approximately 81 million Americans, or 20%. Those aged 85 and older make up the fastest-growing segment of the population in the country today, and that segment is expected to more than triple by 2050, rising to approximately 19 million (Federal Interagency Forum on Aging-Related Statistics, 2012). Some developmental experts, as Santrock (2013) points out, distinguish three categories of older adults: the young-old (65–74 years of age), the old-old (75–84 years of age), and the oldest-old (85 years and older).

Most older people suffer from at least one chronic condition, and many have multiple conditions. On the average, they are hospitalized longer than persons in other age categories and require more teaching overall to broaden their knowledge of self-care. In addition, it is approximated by the USDHHS that as of 2014, 84% of those older than 65 years of age have a high school education. These numbers have increased significantly since 1970, when only 28% of older adults had a high school diploma. However, currently only 26% have a college degree at the bachelor's level or higher (USDHHS, 2014a).

Low educational levels, sensory impairments, the disuse of literacy skills once learned, and cognitive changes in the older adult population may contribute to these individuals' decreased ability to read and comprehend written materials (Best, 2001). For these reasons, their patient education needs are generally greater and more complex than those for persons in any of the other developmental stages. In light of considerable healthcare expenditures for older people, education programs to improve their health status and reduce morbidity would be a cost-effective measure (Behm et al., 2014; Best, 2001; Mauk, 2014; Robnett & Chop, 2015).

Ageism describes prejudice against the older adult. This discrimination based on age, which exists in most segments of American society, perpetuates the negative stereotype of aging as a period of decline (Gavan, 2003). Ageism, in many respects, is similar to the discriminatory attitudes of racism and sexism (Crandell et al., 2012). It interferes with interactions between the older adult and younger age groups and must be counteracted.

Given that the aging process is universal, eventually everyone is potentially subject to this type of prejudice. New research that focuses on healthy development and positive lifestyle adaptations, rather than on illnesses and impairments in the older adult,

can serve to reverse the stereotypical images of aging. Education to inform people of the significant variations that occur in the way that individuals age and education to help the older adult learn to cope with irreversible losses can combat the prejudice of ageism as well (Crandell et al., 2012).

The teaching of older persons, known as **gerogogy**, is different from teaching younger adults (andragogy) and children (pedagogy). For teaching to be effective, gerogogy must accommodate the normal physical, cognitive, and psychosocial changes that occur during this phase of growth and development (Best, 2001). Until recently, little had been written about the special learning needs of older adults that acknowledged the physiological and psychological aging changes affecting their ability to learn.

Age changes often create obstacles to learning unless nurses understand them and can adapt appropriate teaching interventions to meet the older person's needs. The following discussion of physical, cognitive, and psychosocial maturation is based on findings reported by numerous authors (Ahroni, 1996; Best, 2001; Crandell et al., 2012; Gavan, 2003; Hinkle, 2014; Mauk, 2014; Santrock, 2013; Weinrich & Boyd, 1992).

PHYSICAL, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT

With advancing age, many physical changes occur. The senses of sight, hearing, touch, taste, and smell are usually the first areas of decreased functioning noticed by adults. Visual and auditory changes relate most closely to learning capacity. Hearing loss, which is very common beginning in the late 40s and 50s, includes diminished ability to discriminate high-pitched, high-frequency sounds. Visual changes such as cataracts, macular degeneration, reduced pupil size, decline in depth perception, and presbyopia may prevent older persons from being able to see small print, read words printed on glossy paper, or drive a car. Yellowing of the ocular lens can produce color distortions and diminished color perceptions.

Other physiological changes affect organ functioning and result in decreased cardiac output, lung performance, and metabolic rate; these changes reduce energy levels and lessen the ability to cope with stress. Nerve conduction velocity also is thought to decline by as much as 15%, influencing reflex times and muscle response rates. The interrelatedness of each body system has a total negative cumulative effect on individuals as they grow older.

Aging affects the mind as well as the body. Cognitive ability changes with age as permanent cellular alterations invariably occur in the brain itself, resulting in an actual loss of neurons, which have no regenerative powers. Physiological research has demonstrated that people have two kinds of intellectual ability—crystallized and fluid intelligence. **Crystallized intelligence** is the intelligence absorbed over a lifetime, such as vocabulary, general information, understanding social interactions, arithmetic reasoning, and ability to evaluate experiences. This kind of intelligence actually increases with experience as people age. However, it is important to understand that crystallized intelligence can be impaired by disease states, such as the dementia seen in Alzheimer's disease. **Fluid intelligence** is the capacity to perceive relationships, to reason, and to perform

abstract thinking. This kind of intelligence declines as degenerative changes occur. The decline in fluid intelligence results in the following specific changes:

1. *Slower processing and reaction time.* Older persons need more time to process and react to information. However, if the factor of speed is removed from intelligence tests, older people can perform as well as younger people (Kray & Lindenberger, 2000).
2. *Persistence of stimulus (afterimage).* Older adults can confuse a previous symbol or word with a new word or symbol just introduced.
3. *Decreased short-term memory.* Older adults sometimes have difficulty remembering events or conversations that occurred just hours or days before.
4. *Increased test anxiety.* People in the older adult years are especially anxious about making mistakes when performing; when they do make an error, they become easily frustrated. Because of their anxiety, they may take an inordinate amount of time to respond to questions, particularly on tests that are written rather than verbal.
5. *Altered time perception.* For older persons, life becomes more finite and compressed. Issues of the here and now tend to be more important.

Despite the changes in cognition as a result of aging, most research supports that the ability of older adults to learn and remember remains strong if special care is taken to slow the pace of presenting information, to ensure relevance of material, and to give appropriate feedback when teaching (Figure 5–1).

Erikson (1963) labels the major psychosocial developmental task at this stage in life as *ego integrity versus despair*. This phase of older adulthood includes dealing with the reality of aging, the acceptance of the inevitability that all persons die, the reconciling of past failures with present and future concerns, and developing a sense of growth and

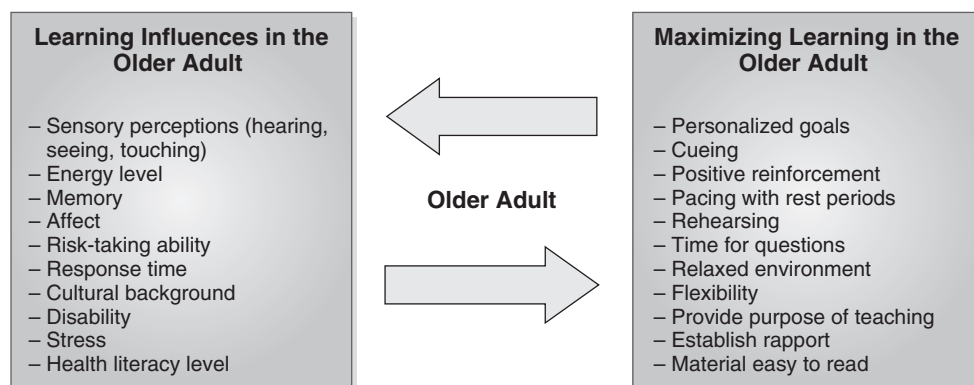


Figure 5–1 Learning in the older adult

Data from Mauk, K. L. (2014). *Gerontological nursing: Competencies for care* (3rd ed.). Burlington, MA: Jones & Bartlett Learning; Rendon, D. C., Davis, D. K., Gioiella, E. C., & Tranzillo, M. J. (1986). The right to know, the right to be taught. *Journal of Gerontological Nursing*, 12(12), 36.

purpose for those years remaining (Table 5–2). The most common psychosocial tasks of aging involve changes in lifestyle and social status as a result of the following:

- Retirement
- Illness or death of spouse, relatives, and friends
- The moving away of children, grandchildren, and friends
- Relocation to an unfamiliar environment such as an extended-care facility or senior residential living center

After Erikson's death in 1994, a ninth stage of psychosocial development, which has been labeled *hope and faith versus despair*, was published by his wife in the book *The Lifecycle Completed* (1997). It addresses those individuals reaching their late 80s and older, identifying that aging individuals have to accept the need for greater assistance as their bodies age. The goal is to find a renewed awareness of self in the midst of this need for additional care while eventually achieving a new sense of wisdom that is less materialistic and moves the individual beyond physical limitations (Crandell et al., 2012; Erikson, 1997). With aging, some individuals, particularly the oldest-old, begin to question their perception of a meaningful life—that is, the potential for further enjoyment, pleasure, and satisfaction. Depressive symptoms do increase in the oldest-old and are thought to be associated with more physical disability, more cognitive impairment, and lower socioeconomic status (Santrock, 2013).

Separate from biological aging but closely related are the many sociocultural factors that affect how older adults see themselves as competent individuals (Crandell et al., 2012; Leifer & Hartston, 2004; Santrock, 2013). The following traits regarding personal goals in life and the values associated with them are significantly related to motivation and learning:

1. *Independence.* The ability to provide for their own needs is the most important aim of the majority of older persons, regardless of their state of health. Independence gives them a sense of self-respect, pride, and self-functioning so as not to be a burden to others. Health teaching is the tool to help them maintain or regain independence.
2. *Social acceptability.* Winning approval from others is a common goal of many older adults. It is derived from health, a sense of vigor, and feeling and thinking young. Despite declining physical attributes, the older adult often has residual fitness and functioning potentials. Health teaching can help to channel these potentials.
3. *Adequacy of personal resources.* Life patterns, which include habits, physical and mental strengths, and economic situation, should be assessed to determine how to incorporate teaching to complement existing regimens and resources (financial and support systems) with new required behaviors.
4. *Coping mechanisms.* The ability to cope with change during the aging process is indicative of the person's readiness for health teaching. Positive coping mechanisms allow for self-change as older persons draw on life experiences and knowledge gained over the years. Negative coping mechanisms indicate an individual's focus on losses and show that his or her thinking is immersed in the

past. The emphasis in teaching is on exploring alternatives, determining realistic goals, and supporting large and small accomplishments.

5. *Meaning of life.* Health teaching must be directed at ways older adults can maintain optimal health so that they can derive pleasure from their leisure years.

TEACHING STRATEGIES

Understanding older persons' developmental tasks allows nurses to alter how they approach both well and ill individuals in terms of counseling, teaching, and establishing a therapeutic relationship. Decreased cognitive functioning, sensory deficits, lower energy levels, and other factors may prevent early disease detection and intervention. A decline in psychomotor performance affects the older adults' reflex responses and their ability to handle stress. Coping with simple tasks becomes more difficult. Chronic illnesses, depression, and literacy levels, particularly among the oldest-old, have implications with respect to how they care for themselves (eating, dressing, and taking medications) as well as the extent to which they understand the nature of their illnesses (Best, 2001; Katz, 1997; Mauk, 2014; Phillips, 1999).

In working with older adults, reminiscing is a beneficial approach to use to establish a therapeutic relationship. Memories can be quite powerful. Talking with older persons about their experiences can be very stimulating. Furthermore, their answers will give the nurse insight into their humanness, their abilities, and their concerns. Gavan (2003) warns that it is easy to fall into the habit of believing the myths associated with the intelligence, personality traits, motivation, and social relations of older adults.

Nurses may not even be aware of their stereotypical attitudes toward older adults. Furthermore, healthcare providers make assumptions about older clients that cause them to overlook problems that could be treatable (Gavan, 2003). To check their assumptions, nurses can think about the last time they gave instructions to an older patient and ask themselves the following questions:

- Did I talk to the family and ignore the patient when I described some aspect of care or discharge planning?
- Did I tell the older person not to worry when he or she asked a question? Did I say, "Just leave everything up to us"?
- Did I eliminate information that I normally would have given to a younger patient?
- Did I attribute a decline in cognitive functioning to the aging process without considering common underlying causes in mental deterioration, such as effects of medication interactions, fluid imbalances, poor nutrition, infection, or sensory impairments?

Remember that older people can learn, but their abilities and needs differ from those of younger persons. Because changes as a result of aging vary considerably from one individual to another, it is essential to assess each learner's physical, cognitive, and psychosocial functioning levels before developing and implementing any teaching plan. Keep in mind that older adults have an overall lower educational level of formal

schooling than does the population as a whole. Also, they were raised in an era when consumerism and health education were practically nonexistent. As a result, older people may feel uncomfortable in the teaching–learning situation and may be reluctant to ask questions.

In the future, as the older population becomes more educated, these individuals will likely have an increased desire to actively participate in decision making and demand more detailed and sophisticated information. This increased participation by clients can assist in managing chronic diseases, promoting quality and safety in healthcare organizations, and ensuring effective redesign of care and treatment-related processes (Longtin et al., 2010). Further, the involvement of clients in deciding the course of their own care is an objective of *Healthy People 2020* (USDHHS, 2014b).

Health education for older persons should be directed at promoting their involvement and changing their attitudes toward learning (Ahroni, 1996; Weinrich & Boyd, 1992). They need to be made to feel important for what they once were as well as for what they are today. Interactions must be supportive, not judgmental. Interventions work best when they take place in a casual, informal atmosphere.

A recent report found that 53% of those persons older than age 65 are engaged in some type of computer use (Zickuhr & Madden, 2012). Thus, while many older adults routinely use computers, a good number do not. Assuming the client has the computer skills necessary to look up healthcare information or engage in self-education can derail learning. As the population continues to age, computer use will be more prevalent and preferred by clients who have been comfortable using technology to increase their knowledge (Mauk, 2014).

Some of the more common aging changes that affect learning and the teaching strategies specific to meeting the needs of the older adult are summarized in Table 5–1. When teaching older persons, abiding by the following specific tips can create an environment for learning that takes into account major changes in their physical, cognitive, and psychosocial functioning (Best, 2001; Crandell et al., 2012; Doak, Doak, & Root, 1996; Katz, 1997; Phillips, 1999; Robnett & Chop, 2015; Santrock, 2013; Weinrich & Boyd, 1992):

Physical Needs

1. To compensate for visual changes, teaching should be done in an environment that is brightly lit but without glare. Visual aids should include large print, well-spaced letters, and the use of primary colors. Bright colors and a visible name tag should be worn by the nurse. Use white or off-white, flat matte paper and black print for posters, diagrams, and other written materials.

Because older adults have difficulty in discriminating certain shades of color, avoid blue, blue–green, and violet hues. Keep in mind that tasks that require recognizing different shades of color, such as test strips measuring the presence of sugar in the urine, may lead to errors because green, blue, and yellow colors may all appear gray to older persons. For patients who wear glasses, be sure they are readily accessible, lenses are clean, and frames are properly fitted.

2. To compensate for hearing losses, eliminate extraneous noise, avoid covering your mouth when speaking, directly face the learner, and speak slowly. These techniques assist the learner who may be seeking visual confirmation of what is being said.

Low-pitched voices are heard best, but be careful not to drop your voice at the end of words or phrases. Do not shout, because the decibel level (loudness) is usually not a problem. Ask for feedback from the learner to determine whether you are speaking too softly, too fast, or not distinctly enough.

Be alert to nonverbal cues from the audience. Participants who are having difficulty with hearing your message may try to compensate by leaning forward, turning the good ear to the speaker, or cupping their hands to their ears. Ask older persons to repeat verbal instructions to be sure they heard and interpreted correctly the entire message.

3. To compensate for musculoskeletal problems, decreased efficiency of the cardiovascular system, and reduced kidney function, keep sessions short, schedule frequent breaks to allow for use of bathroom facilities, and allow time for stretching to relieve painful, stiff joints and to stimulate circulation.
4. To compensate for any decline in central nervous system functioning and decreased metabolic rates, set aside more time for the giving and receiving of information and for the practice of psychomotor skills. Also, do not assume that older persons have the psychomotor skills necessary to handle technological equipment for self-paced learning, such as computers and mouse, ear buds instead of headsets, MP3 players, and DVD players. Be careful not to misinterpret the loss of energy and motor skills as a lack of motivation.
5. To compensate for the impact of hearing and visual changes on computer use, be sure that the speakers on the computer are working well and use headphones to block background noise (Mauk, 2014). **Table 5–3** outlines specific strategies that can assist older adults to overcome problems associated with computer use.

Cognitive Needs

1. To compensate for a decrease in fluid intelligence, provide older persons with more opportunities to process and react to information and to see relationships between concepts. Research has shown that older adults can learn anything if new information is tied to familiar concepts drawn from relevant past experiences.

Avoid presenting long lists by dividing a series of directions for action into short, discrete, step-by-step messages and then waiting for a response after each one. Older persons also tend to confuse previous words and symbols with a new word or symbol being introduced. Nurses should wait for a response before introducing a new concept or word definition. For decreased short-term memory, coaching and repetition are very useful recall strategies. Because many older adults experience test anxiety, try to explain procedures simply and thoroughly, and provide reassurance that you are not testing them.

Table 5–3 Problems That Can Be Overcome by Older Adults Using Computers

Age Change	Effect on Computer Use	Possible Solutions
Hearing	Sound from computer may not be heard	Use earphones to enhance hearing and eliminate background noise. Speak slowly and clearly.
Vision	Vision declines, need for bifocal glasses, viewing monitor may be difficult, problems with glaucoma and light/colors	Adjust monitor's tilt to eliminate glare. Change size of font to 14. Make sure contrast is clear. Change the screen resolution to promote color perception.
Motor control tremors	May affect use of keyboard or control of mouse, may not be able to hold the mouse and consistently click correct mouse buttons	Highlight area and press Enter. Avoid double clicking.
Arthritis	May not be able to hold the mouse and consistently click correct mouse buttons	Highlight area and press Enter. Teach how to use options on keyboard.
Attention span	Problems with inability to focus and making correct inferences	Priming—introduce concept early on. Repetition is key to retention. Use cheat sheets.

Reproduced from Mauk, K. L. (2010). *Gerontological nursing: Competencies for care* (2nd ed.). Sudbury, MA: Jones & Bartlett Learning.

2. Be aware of the effects of medications and energy levels on concentration, alertness, and coordination. Try to schedule teaching sessions before or well after medications are taken and when the person is rested.
3. Be certain to ask what an individual already knows about a healthcare issue or technique before explaining it. Confirm patients' level of knowledge before beginning to teach. Basic information should be understood before progressing to more complex information.
4. Convincing older persons of the usefulness of what the nurse is teaching is only half the battle in getting them motivated. Anything that is entirely strange or that upsets established habits is likely to be significantly more difficult for older adults to learn.
5. Find out about older persons' health habits and beliefs before trying to change their ways or teach something new.
6. Arrange for brief teaching sessions because a shortened attention span (attentional narrowing) requires scheduling a series of sessions to provide sufficient time for learning. In addition, if the material is relevant and focused on the here and now, older persons are more likely to be attentive to the information being presented.
7. Take into account that the ability to think abstractly becomes more difficult with aging. Conclude each teaching session with a summary of the information presented and allow for a question-and-answer period to correct any misconceptions.



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Figure 5–2 A basic gerontological teaching-learning model

Reproduced from Rendon, D. C., Davis, D. K., Gioiella, E. C., & Tranzillo, M. J. (1986). The right to know, the right to be taught. *Journal of Gerontological Nursing*, 12(12), 36.

Figure 5–2 presents strategies to meet the cognitive needs of older adults.

Psychosocial Needs

1. Assess family relationships to determine how dependent the older person is on other members for financial and emotional support. In turn, patient educators can explore the level of involvement by family members in reinforcing the lessons they are teaching and in giving assistance with self-care measures. Do family members help the older person to function independently, or do they foster dependency? With permission of the patient, include family members in teaching sessions and enlist their support.
2. Determine availability of resources, because older adults may not be able to carry out recommendations they cannot afford or lack the means to do.

3. Encourage active involvement of older adults to improve their self-esteem and to stimulate them both mentally and socially. Teaching must be directed at helping them find meaningful ways to use talents acquired over their lifetime.
4. Identify coping mechanisms. No other time in the life cycle carries with it the number of developmental tasks associated with adaptation to loss of roles, social and family contacts, and physical and cognitive capacities that this time does. Teaching must include offering constructive methods of coping.

The older person's ability to learn may be affected by the methods and materials chosen for teaching. One-to-one instruction provides a nonthreatening environment for older adults in which to meet their individual needs and goals. Group teaching also can be a beneficial approach for fostering social skills and maintaining contact with others through shared experiences. Introducing new teaching methods and tools, such as the use of computer and interactive video formats, without adequate instructions on how to operate these technical devices, may inhibit learning by increasing anxiety and frustration. Games, role playing, demonstration, and return demonstration can be used to rehearse problem-solving and psychomotor skills as long as these methods and the tools used to complement them are designed appropriately to accommodate the various developmental characteristics of this age group.

The Role of the Family in Patient Education

The role of the family is considered one of the key variables influencing positive patient care outcomes. Family caregivers provide critical emotional, physical, and social support to the patient in the midst of managing complex care regimens (Gavan, 2003; Reeber, 1992; Reinhard, Levine, & Samis, 2012). Under The Joint Commission accreditation standards, demands have been placed on healthcare organizations to show evidence of patient and family-centered care, which requires including significant others in patient education efforts (The Joint Commission, 2010). Nurses and other providers are responsible for assisting both patients and their designated support person(s) to gain the knowledge and skills necessary to meet ongoing healthcare goals, particularly the first of the *Healthy People 2020* initiatives—that is, to increase the quality and years of healthy, disease-free, and injury-free life (USDHHS, 2014b). Interdisciplinary collaboration that involves family caregivers is a major resource for ensuring continuity of client teaching about healthy lifestyles in and across healthcare settings (Reinhard et al., 2012).

Including the family members in the teaching–learning process helps to ensure that the situation is a win-win scenario for both the client and the nurse. Family role enhancement and increased knowledge on the part of the family have positive benefits for the learner as well as the nurse as teacher. Clients derive increased satisfaction and greater independence in self-care, and nurses experience increased job satisfaction and personal gratification in helping clients to reach their potentials and achieve successful outcomes (Barnes, 1995; Gavan, 2003).

Although a great deal of attention has been given to the ways in which young and adolescent families function, unfortunately minimal attention has been paid to the dynamics of the complex interactions that characterize the aging family (Gavan, 2003).

In patient education, the nurse may be tempted to teach as many family members as possible. In reality, it is difficult to coordinate the instruction of so many different people. The more individuals involved, the greater the potential for misunderstanding of instruction.

The family must make the deliberate decision as to who is the most appropriate person to take the primary responsibility as the caregiver. Then the nurse must determine how the caregiver feels about the role of providing supportive care and about learning the necessary information. The nurse also must explore what are the caregiver's learning style preferences, cognitive abilities, fears and concerns, and current knowledge of the situation (Leifer & Hartston, 2004). The caregiver needs information similar to what the patient is given to provide support, feedback, and reinforcement of self-care consistent with prescribed regimens of care. In some cases, a secondary caregiver also is identified and the same considerations in teaching must be given.

Sometimes the family members need more information than the patient to compensate for any sensory deficits or cognitive limitations the patient may have. Anticipatory teaching with family caregivers can reduce their anxiety, uncertainty, and lack of confidence. What the family is to *do* is important, but what the family is to *expect* also is essential information to be shared during the teaching–learning process (Haggard, 1989). The greatest challenge for caregivers is to develop confidence in their ability to do what is right for the patient. Education and training are the means to help them confront this challenge (Reinhard et al., 2012).

The family can be the nurse's greatest ally in preparing the patient for discharge and in helping the patient to become independent in self-care. The patient's family is perhaps the single most significant determinant of the success or failure of the education plan and achievement of successful aging (Capezuti, 2014; Gavan, 2003; Haggard, 1989). The role of the family has been stressed in each developmental section in this chapter. Table 5–1 outlines appropriate interventions for the family at different stages in the life cycle.

Summary

It is important to understand the specific and varied tasks associated with each developmental stage to individualize the approach to education in meeting the needs and desires of patients and their families. Assessment of physical, cognitive, and psychosocial maturation within each developmental period is crucial in determining the appropriate strategies to facilitate the teaching–learning process. The younger learner is, in many ways, very different from the adult learner. Issues of dependency, extent of participation, rate of and capacity for learning, and situational and emotional obstacles to learning vary significantly across the various phases of development.

Readiness to learn in children is very subject centered and highly influenced by their physical, cognitive, and psychosocial maturation. Motivation to learn in adults is very problem centered and more oriented to psychosocial tasks related to roles and expectations of work, family, and community activities. For education to be effective, the nurse must create an environment conducive to learning by presenting information at the

learner's level, inviting participation and feedback, and identifying whether parental, family, and/or peer involvement is appropriate or necessary. Nurses are the main source of health information and must determine, in concert with the client, what needs to be taught, when to teach, how to teach, and who should be the focus of teaching in light of the developmental stage of the learner.

Review Questions

1. What are the seven stages of development?
2. Define *pedagogy*, *andragogy*, and *gerogogy*.
3. Who is the expert in cognitive development? What are the terms or labels used by this expert to identify the key cognitive milestones?
4. Who is the expert in psychosocial development? What are the terms or labels used by this expert to identify the key psychosocial milestones?
5. What are the specific characteristics at each stage of development that influence the ability to learn?
6. What are three main teaching strategies for each stage of development?
7. How do people you know in each stage of development compare with what you have learned about physical, cognitive, and psychosocial characteristics at the various developmental stages?
8. What is the role of the family in the teaching and learning process at each stage of development?
9. How does the role of the nurse vary when teaching individuals at different stages of development?

Case Study

Potomac University's Lillian Case Asthma Center is developing a new program that focuses on a family-centered approach to asthma management. Expected client outcomes of the program are to reduce hospitalizations and days off from work or school. You are a member of the nursing team that is developing a comprehensive, family-oriented educational program that covers important asthma topics such as pathophysiology, peak-flow meter use, and exercise. Mauricio, a member of the team, suggests, "Let's do our teaching with all the family members together in a group." Liza, another team member, states, "We should separate the family members into similar age groups for the teaching—that way, we can better keep their interest." You suggest that the team integrate Mauricio's and Liza's suggestions and plan a total of five teaching sessions, with four of the sessions grouping participants according to developmental stages and the final session grouping families together. Participants range from 6 to 50 years of age.

1. Describe how you will determine the different developmental stage groupings of the participants for the first four sessions. Explain the different age ranges, cognitive and psychosocial stages, and general characteristics of each group.

2. Choose two different developmental stage groupings and give examples of teaching strategies you will use with each group for the specific teaching sessions.
3. What are some advantages to grouping participants by developmental stages? What are some disadvantages?

References

- Ackard, D. M., & Neumark-Sztainer, D. (2001). Health care information sources for adolescents: Age and gender differences on use, concerns, and needs. *Journal of Adolescent Health, 29*(3), 170–176.
- Ahroni, J. H. (1996). Strategies for teaching elders from a human development perspective. *Diabetes Educator, 22*(1), 47–52.
- Ares, K., Kuhns, L. M., Dogra, N., & Karnik, N. (2015). Child mental health and risk behavior over time. In B. Kirkcaldy (Ed.), *Promoting psychological wellbeing in children and families* (pp. 135–153). New York, NY: Palgrave Macmillan.
- Aronowitz, T. (2006). Teaching adolescents about adolescence: Experiences from an interdisciplinary adolescent health course. *Nurse Educator, 31*(2), 84–87.
- Babcock, D. E., & Miller, M. A. (1994). *Client education: Theory and practice*. St. Louis, MO: Mosby.
- Banks, E. (1990). Concepts of health and sickness of preschool- and school-aged children. *Children's Health Care, 19*(1), 43–48.
- Barnes, L. P. (1995). Finding the “win/win” in patient/family teaching. *MCN: The American Journal of Maternal/Child Nursing, 20*(4), 229.
- Behm, L., Wilhelmson, K., Falk, K., Eklund, K., Zidén, L., & Dahlin-Ivanoff, S. (2014). Positive health outcomes following health-promoting and disease preventive interventions for independent very old persons: Long-term results of the three-armed RCT elderly persons in the risk zone. *Archives of Gerontology and Geriatrics, 58*(3), 376–383.
- Best, J. T. (2001). Effective teaching for the elderly: Back to basics. *Orthopaedic Nursing, 20*(3), 46–52.
- Boyd, M. D., Gleit, C. J., Graham, B. A., & Whitman, N. I. (1998). *Health teaching in nursing practice: A professional model* (3rd ed.). Norwalk, CT: Appleton & Lange.
- Brown, S. L., Teufel, J. A., & Birch, D. A. (2007). Early adolescents' perceptions of health and health literacy. *Journal of School Health, 77*(1), 7–15.
- Capezuti, E. (2014). It's a matter of trust: Nurses supporting family caregivers. *Geriatric Nursing, 35*, 154–155.
- Collins, J. (2004). Education techniques for lifelong learners. *RadioGraphics, 24*(5), 1483–1489.
- Crandell, T. L., Crandell, C. H., & Vander Zanden, J. W. (2012). *Human development* (11th ed.). New York, NY: McGraw-Hill.
- Curran, M. K. (2014). Examination of the teaching styles of nursing professional development specialists, Part I: Best practices in adult learning theory, curriculum development, and knowledge transfer. *The Journal of Continuing Education in Nursing, 45*(5), 233–240.
- Doak, C. C., Doak, L. G., & Root, J. H. (1996). *Teaching patients with low literacy skills* (2nd ed.). Philadelphia, PA: Lippincott.
- Elkind, D. (1984). Teenage thinking: Implications for health care. *Pediatric Nursing, 10*(6), 383–385.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York, NY: Norton.

- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Erikson, E. (1997). *The life cycle completed* (extended version). New York, NY: Norton.
- Falvo, D. (2011). *Effective patient education: A guide to increased adherence* (4th ed.). Sudbury, MA: Jones & Bartlett Learning.
- Federal Interagency Forum on Aging-Related Statistics. (2012). *Older Americans 2012: Key indicators of well-being*. Washington, DC: U.S. Government Printing Office.
- Gavan, C. S. (2003). Successful aging families: A challenge for nurses. *Holistic Nursing Practice*, 17(1), 11–18.
- Grey, M., Kanner, S., & Lacey, K. O. (1999). Characteristics of the learner: Children and adolescents. *Diabetes Educator*, 25(6), 25–33.
- Haggard, A. (1989). *Handbook of patient education*. Rockville, MD: Aspen.
- Havighurst, R. (1976). Human characteristics and school learning: Essay review. *Elementary School Journal*, 77, 101–109.
- Heiney, S. P. (1991). Helping children through painful procedures. *American Journal of Nursing*, 91(11), 20–24.
- Hines, A. R., & Paulson, S. E. (2006). Parents' and teachers' perceptions of adolescent storm and stress: Relations with parenting and teaching styles. *Adolescence*, 41(164), 597–614.
- Hinkle, J. (2014). *Brunner & Suddarth's textbook of medical-surgical nursing* (13th ed.). Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Hussey, C. G., & Hirsh, A. M. (1983). Health education for children. *Topics in Clinical Nursing*, 5(1), 22–28.
- The Joint Commission. (2010). *Advancing effective communication, cultural competence, and patient-and family-centered care: A roadmap for hospitals*. Oakbrook Terrace, IL: Author. Retrieved from <http://www.jointcommission.org/assets/1/6/aroadmapforhospitalsfinalversion727.pdf>
- Kaakinen, J. R., Gedaly-Duff, V., Coehlo, D. P., & Hanson, S. M. H. (2010). *Family health care nursing*. Philadelphia, PA: F. A. Davis.
- Katz, J. R. (1997). Back to basics: Providing effective patient education. *American Journal of Nursing*, 97(5), 33–36.
- Knowles, M. (1990). *The adult learner: A neglected species* (4th ed.). Houston, TX: Gulf Publishing.
- Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). *The adult learner: The definitive classic in adult education and human resource development* (8th ed.). London, England: Routledge: Taylor and Francis Group.
- Kochanek, K. D., Xu, J., Murphy, S. L., Minino, A. M., & Kung, H. (2011). Deaths: Final data for 2009. *National Vital Statistics Reports*, 60(3), 1–166.
- Koopman, H. M., Baars, R. M., Chaplin, J., & Zwinderman, K. H. (2004). Illness through the eyes of a child: The development of children's understanding of the causes of illness. *Patient Education and Counseling*, 55(3), 363–370.
- Kotchabhakdi, P. (1985). School-age children's conceptions of the heart and its function. Monograph 15. *Maternal-Child Nursing Journal*, 14(4), 203–261.
- Kray, J., & Lindenberger, U. (2000). Adult age differences in task switching. *Psychology and Aging*, 15(1), 126–147.
- Lawson, P. J., & Flocke, S. A. (2009). Teachable moments for health behavior change: A concept analysis. *Patient Education and Counseling*, 76(1), 25–30.
- Leifer, G., & Hartston, H. (2004). *Growth and development across the lifespan: A health promotion focus*. St. Louis, MO: Saunders.
- London, M. C., Ladewig, P. W., Davidson, M. C., Ball, J. W., & Bindler, R. C. (2013). *Maternal and child nursing care* (4th ed.). Upper Saddle River, NJ: Pearson.

- Longtin, Y., Sax, H., Leape, L. L., Sheridan, S. E., Donaldson, L., & Pittet, D. (2010). Patient participation: Current knowledge and applicability to patient safety. *Mayo Clinic Proceedings*, 85(1), 53–62.
- Mauk, K. L. (2014). *Gerontological nursing: Competencies for care* (3rd ed.). Burlington, MA: Jones & Bartlett Learning.
- Michaud, P.-A., Stronski, S., Fonseca, H., & MacFarlane, A. (2004). The development and pilot-testing of a training curriculum in adolescent medicine and health. *Journal of Adolescent Health*, 35(1), 51–57.
- Ormrod, J. E. (2012). *Essentials of educational psychology: Big ideas to guide effective teaching* (3rd ed.). Boston, MA: Pearson.
- Orshan, S. A. (2008). *Maternity, newborn, and woman's health nursing: Comprehensive care across the lifespan*. Philadelphia, PA: Lippincott Williams & Wilkins.
- Palfrey, J. S., Hauser-Cram, P., Bronson, M. B., Warfield, M. E., Sirin, S., & Chan, E. (2005). The Brookline early education project: A 25-year follow-up study of family-centered early health and development intervention. *Pediatrics*, 116(1), 144–152.
- Perrin, E. C., Sayer, A. G., & Willett, J. B. (1991). Sticks and stones may break my bones . . . Reasoning about illness causality and body functioning in children who have a chronic illness. *Pediatrics*, 88(3), 608–619.
- Phillips, L. D. (1999). Patient education: Understanding the process to maximize time and outcomes. *Journal of Intravenous Nursing*, 22(1), 19–35.
- Piaget, J. (1951). *Judgment and reasoning in the child*. London, England: Routledge & Kegan Paul.
- Piaget, J. (1952). *The origins of intelligence in children*. New York, NY: International Universities Press.
- Piaget, J. (1976). *The grasp of consciousness: Action and concept in the young child*. (S. Wedgwood, Trans.). Cambridge, MA: Harvard University Press.
- Pidgeon, V. (1985). Children's concepts of illness: Implications for health teaching. *Maternal–Child Nursing Journal*, 14(1), 23–35.
- Polan, E., & Taylor, D. (2015). *Journey across the lifespan: Human development and health promotion* (5th ed.). Philadelphia, PA: F. A. Davis.
- Poster, E. C. (1983). Stress immunization: Techniques to help children cope with hospitalization. *Maternal–Child Nursing Journal*, 12(2), 119–134.
- Protheroe, N. (2007). How children learn. *Principal*, 86(5), 40–44.
- Reeber, B. J. (1992). Evaluating the effects of a family education intervention. *Rehabilitation Nursing*, 17(6), 332–336.
- Reinhard, S. C., Levine, C., & Samis, S. (2012). *Home alone: Family caregivers providing complex chronic care*. Washington, D. C.: AARP Public Policy Institute. Retrieved from <http://www.aarp.org/ppi>.
- Rendon, D. C., Davis, D. K., Gioiella, E. C., & Tranzillo, M. J. (1986). The right to know, the right to be taught. *Journal of Gerontological Nursing*, 12(12), 36.
- Robnett, R. H., & Chop, W. (2015). *Gerontology for the health care professional* (3rd ed.). Burlington, MA: Jones & Bartlett Learning.
- Ryberg, J. W., & Merrifield, E. B. (1984). What parents want to know. *Nurse Practitioner*, 9(6), 24–32.
- Santrock, J. W. (2013). *Life-span development* (14th ed.). New York, NY: McGraw-Hill.
- Snowman, J., & McCown, R. (2015). *Psychology applied to teaching* (14th ed.). Stanford, CA: Wadsworth/Cengage Learning.
- Steege, S., & De Neys, W. (2012). Belief inhibition in children's reasoning: Memory-based evidence. *Journal of Experimental Child Psychology*, 112, 231–242.
- Taylor, K., Marienau, C., & Fiddler, M. (2000). *Developing adult learners: Strategies for teachers and trainers*. San Francisco, CA: Jossey-Bass.

- U. S. Department of Health and Human Services [USDHHS]. (2014a). *A profile of older Americans: 2014*. Administration on Aging, Administration for Community Living, U.S. Department of Health and Human Services Administration on Aging. Retrieved from http://www.aoa.acl.gov/Aging_Statistics/Profile/2014/docs/2014-Profile.pdf
- U. S. Department of Health and Human Services [USDHHS]. (2014b). *Healthy People 2020*. Office of Disease Prevention and Health Promotion. Retrieved from <http://www.healthypeople.gov/>
- Vulcan, B. (1984). Major coping behaviors of a hospitalized 3-year-old boy. *Maternal–Child Nursing Journal*, 13(2), 113–123.
- Weinrich, S. P., & Boyd, M. (1992). Education in the elderly. *Journal of Gerontological Nursing*, 18(1), 15–20.
- Whitener, L. M., Cox, K. R., & Maglich, S. A. (1998). Use of theory to guide nurses in the design of health messages for children. *Advances in Nursing Science*, 20(3), 21–35.
- Woodring, B. C. (2000). If you have taught—have the child and family learned? *Pediatric Nursing*, 26(5), 505–509.
- Zickuhr, K., & Madden, M. (2012). *Older adults and their Internet use*. Washington, DC: Pew Research Center's Internet and American Life Project. Retrieved from http://www.pewinternet.org/~media/Files/Reports/2012/PIP_Older_adults_and_internet_use.pdf

