1 HUMAN DEVELOPMENT THROUGH THE LIFESPAN

Every human being is the author of his own health or disease.

Buddha

The study of human development is complex and involves an in-depth analysis of the processes of change and stability throughout one's **lifespan**. These processes require a comprehensive and systematic **scientific inquiry** to investigate human development while considering growth, development, and **maturation** through the lifespan. Scientists refer to the elements of change and constancy over the lifespan as **development**, which is defined as the orderly and sequential changes that occur over time as an organism moves from **conception** to death.

Development occurs through processes that are biologically programmed within the organism and processes of interaction with the environment that transform the organism. Human development over the lifespan is a process of becoming something different while remaining the same in some respects. Perhaps what is uniquely human is that we remain in an unending state of development mentally and biologically. Life is always an unfinished business, and death is its only cessation. From earlier days, the study of human development grows out of Charles Darwin's desire to understand evolution. The field of human development research became a recognized **discipline** when scientists from different disciplines demonstrated interest in better understanding **human growth** and **human development** through the lifespan, as it relates to the contributions of **genetic traits and composition**, physical and psychological development, parental influence, and school and learning contributions, including cultural, community, and societal contributions. Scientists who pursue the study of human development intend to describe, explain, predict, and modify human growth development through the lifespan (Bornstein & Lamb, 2005).

In addition to Darwin's theory of biological evolution, the **biogenetic law** is a theory of development and evolution proposed by Ernst Haeckel (1877) in Germany in the 1860s. Barnes (2014) described biogenetic law as follows:

> It is one of several recapitulation theories, which posit that the stages of development for an animal embryo are the same as other animals' adult stages or forms. Commonly stated as ontogeny recapitulates phylogeny, the Biogenetic Law theorizes that the stages an animal embryo undergoes during development are a chronological replay of that species' past evolutionary forms. … Although Haeckel cited Darwin as he proposed the biogenetic law, the two disagreed about embryology and evolution. First, Haeckel interpreted the process of evolution as progressive, following a specified path from lower to higher animals. Darwin, however, argued that evolution was not progressive. He also argued that embryos diverged more from one another as development progressed rather than passing through linear stages of evolutionary ancestry.

Next, we discuss how the study of human development is relevant to counselors and their practice.

WHY IS STUDYING HUMAN DEVELOPMENT SO IMPORTANT?

Learning more about how children develop can give us insight into how we grew up. Consider these questions: What experiences shaped your personality and preferences? How did your upbringing influence who you are today?

For example, you may realize that the experiences you had as a child influenced how you view the world and relate to others. You may see patterns or trends in your behavior, emotions, and relationships rooted in something you learned as a child. You can ask yourself if these lessons are helping you now, or if they are something you may want to try to leave in the past.

Answering these questions may even let you see into your future. Being informed about the aging process will help you feel more prepared for the realities of getting older. This awareness and understanding can be empowering in your personal and professional life, as described next

Understanding Human Development Can Empower You

Understanding human development empowers you to do the following:

- address end-of-life concerns,
- develop and maintain supportive relationships,
- make informed choices about your lifestyle habits and medical care that support your health,
- plan for your needs as you age to stay safe and independent, and
- improve your quality of life.

Counselors who are well informed on the topic of human development will provide optimal services to their clients.

Aging does not always follow a defined path. Many factors determine the path your life will take. However, the earlier you understand and recognize those factors, the sooner you can start working on them.

During the COVID-19 pandemic and postpandemic eras, lives have been unsettled in many ways. For the first time, the global Human Development Index (HDI) reversed—for 2 years. Nearly 9 out of 10 countries saw a decrease in their HDI values in the 2020–2021 period, far exceeding the declines in the wake of the global financial crisis in 2008 or at any time since the HDI was first released by the United Nations Development Programme (UNDP). The HDI is a summary measure of average achievement in three key dimensions of human development: living a long and healthy life, being knowledgeable, and having a decent standard of living. The HDI is the geometric mean of normalized indices for each of these three dimensions (UNDP, 2024b).

In the special report *New Threats to Human Security in the Anthropocene*, the UNDP (2022) found that more than six in seven people worldwide felt insecure. Feelings of insecurity are on the rise, even in countries with the highest HDI levels. Destabilizing planetary pressures, such as climate change, biodiversity loss, and new diseases like COVID-19, have amplified sociopsychological, economic, and health disparities and inequalities between those contributing to planetary pressures and those suffering the consequences (UNDP, 2022). In addition, human pressures on the planet create damage wrought by superstorms, drought, and other natural disasters (UNDP, 2024b).

Globally, there is widespread and intensifying political polarization among and within countries, and large numbers of people feel frustrated and alienated from their political systems. Deepening divisions and polarization, at their extremes, turn into violent conflict. Rates

of armed conflict are up. Even before the war in Ukraine began in 2022, as many as 1.2 billion people were being affected by violent conflicts, about half of whom lived outside fragile contexts (UNDP, 2024b).

Governments with careful planning and caring help protect everyone from the contingencies of an uncertain world. The global surge in social protection in the wake of the pandemic revolutionized vaccines. A major landmark study to be published by *The Lancet* reveals that global immunization efforts have saved an estimated 154 million lives. The majority of lives saved (101 million) were infants. The study, led by the **World Health Organization** (2024), shows that immunization is the single greatest contribution of any health intervention to ensuring babies not only see their first birthday but continue leading healthy lives into adulthood. Immunization also holds promise for preventing and treating many other diseases. Economically, unprecedented monetary interventions and dramatic fiscal expansion, especially in social protection, have weathered the global financial crisis storm; socially, fundamental shifts in behaviors, including voluntary social distancing and self-isolation, are evidence that social norms can change quickly.

THE FUTURE OF ARTIFICIAL INTELLIGENCE

Emerging technology, such as **artificial intelligence (AI)**, will undoubtedly shape our future and pose many opportunities and challenges to our way of life in the years to come. These emerging challenges have the potential to impact the world positively if we apply the technology appropriately and ethically (Conceição, 2022). AI may also contribute to negative outcomes, with recent research indicating that AI significantly impacts the loss of human decision-making, increases laziness, and affects the security and privacy that societies and humans value. For example, Ahmad et al. (2023) conducted a study with participants in China and Pakistan and found that 68.9% of laziness in humans, 68.6% of personal privacy and security issues, and 27.7% of the loss of decision-making were attributable to the impact of AI. Although additional research is needed, the findings by Ahmad et al. suggest that human laziness is the most affected area due to AI. Other AI-specific concerns of both experts and the public are inaccurate information, impersonation, and data misuse, as well as bias in decisions made by AI related to race, ethnicity, and gender—from hiring algorithms to medical decision-making (Pew Research Center, 2025).

There are, however, many positive impacts of AI on humans as well, especially in the field of health care. The contribution of AI to health care and improved quality of life of human beings and animals is enormous. AI gives computers the capacity to learn, reason, and apply logic. Scientists, medical researchers, clinicians, mathematicians, and engineers, when working together, can design AI that aims to improve medical diagnosis and treatments, thus offering reliable and safe systems of health care delivery. As health professionals and medical researchers endeavor to find new and efficient ways of treating diseases, in addition to assisting in analyzing and diagnosing diseases, AI can help create robotic systems to perform delicate medical procedures with precision.

With the application of AI, substantial social changes will occur that disrupt the way humans live in our communities. Humankind must be industrious to make a living but with AI's services, we can program the machine to do a thing for us without even lifting a tool. Human closeness will gradually diminish as AI replaces the need for people to meet face-to-face for idea exchange. AI will stand in between people once the personal gathering is no longer needed for communication. Unemployment is another concern, because many workers will be replaced by machinery. Today, many automobile assembly lines and other major industries have been filled with machinery and robots, forcing traditional workers to lose their jobs and income to support themselves and their families. Even in food supermarkets and many stores, service providers may no longer be needed as digital devices take over human labor.

It is projected that wealth inequality between high-income and low-income earners will widen if wealthy AI investors take up a significant share of the earnings. History has taught us that wealth inequality can lead to political polarization, social discord, and distrust in institutions and can also contribute to the rise of nationalism and populist movements. Wealth inequality can lead to lower economic growth and undermine macroeconomic stability. It can also create a cycle where ordinary people pay most of their income to the wealthy, which can lead to a spiraling increase in wealth inequality. Wealth inequality can affect a person's access to essential services such as education, health care, and water, which will negatively impact human rights issues. Wealth inequality can discourage the accumulation of skills and limit social and economic mobility, and it unintentionally nurtures the violation of human rights through discrimination and abuse. It can also create a cycle of disadvantages that can be passed down through generations. Lastly, wealth inequality accelerates geopolitical instability, because it can threaten geopolitical stability and create more political conflicts among nations (Anderson & Raine, 2018).

AI can cause great harm if used inappropriately. For example, humans who create AI may invent something that is racially biased or egocentrically oriented to harm certain populations. The United Nations has voted to limit the spread of nuclear power, in fear of its indiscriminative use to destroy humankind or target certain races or regions to achieve the goal of domination. AI may have the capability to target certain races or some programmed objects to accomplish the command of destruction, thus creating world disaster (Ahmad et al., 2023).

All of aforementioned contributions and challenges of AI to our world, both positive and negative, will undoubtedly challenge our beliefs and years of research on so-called normal human development. We are on the path of uncertainty and uncharted territory to try and anticipate changes in our societies and how AI will affect human development and, ultimately, humanity. Experts predicted that networked AI will amplify human effectiveness but also threaten human autonomy, agency, and capabilities (Pew Research Center, 2025).

AI can significantly impact human development by enhancing productivity in various fields such as health care, education, and research, enabling faster problem-solving, improving access to information, and automating repetitive tasks. However, it also raises concerns regarding potential job displacement, privacy issues, and ethical considerations in its application.

CLIMATE CHANGE

Climate change is another factor that could worsen inequality within and between countries. Low-income groups and countries are more vulnerable to the impacts of climate change and have less capacity to cope with them.

According to the World Bank (2024), climate change is an urgent human crisis. Addressing climate change requires an international cooperative effort and commitment and a people-centered approach that integrates education, social protection, labor policies, health investments, and climate finance. Changing climate conditions are altering disease burdens by increasing heat-related illnesses and deaths, shifting infectious disease transmission patterns, and worsening maternal and child health outcomes that will ultimately affect human growth and development. Significant strains on health systems could result from climate change, which will simultaneously increase demand for health services while impairing the system's ability to respond. The World Bank predicts that by 2030, the negative health impact of climate change could drive 44 million people into extreme poverty. Furthermore, extreme weather conditions will significantly disrupt learning, and low-income countries and individuals with lower socioeconomic status (SES) will be negatively affected disproportionately. All these negative consequences because of climate change will undoubtedly alter human growth and development globally.

With these emerging and evolving challenges related to human development and our way of life, helping professionals will continue to have increased difficulty working with people who need assistance, which will apply to counseling. Counseling professionals must continue to advance their knowledge in all areas, contributing to human development and improving the treatment modalities to work with clients.

This textbook aims to present human development from a counseling perspective and show how this unique perspective can be applied throughout lifespan development. According to the 2024 Standards of the **Council for Accreditation of Counseling and Related Educational Programs (CACREP)**, it is essential to understand human development as students, educators, and professional counselors in the counseling field.

This chapter provides an overview of factors influencing consistency and change and highlights human development's complexity and multidimensional nature as it unfolds through one's lifespan. In addition, it describes the importance of and essential contribution that knowledge and understanding of human development make to counselors and their effective practice.

Specifically, after completing this chapter, readers will be able to

1. describe what is meant by viewing development from a lifespan perspective,
2. explain the multidimensional and multidirectional nature of lifespan development,
3. describe what is meant by viewing development within a contextual framework,
4. discuss the biopsychosocial approach to defining human development and the multiple interactive forces that shape human development, and
5. explain the value of understanding human development across the lifespan for counseling.

THE COUNSELING CONNECTION

Counselors tend to be doers by the very nature of their vocational calling. As professionals, we review research and emerging theories to understand the human condition better. However, it is more than for the sake of understanding that we pursue these endeavors. Counselors seek to translate theory, research, and knowledge into practice. As such, ask this question as you proceed through this text "What value does understanding human development through the lifespan, or more specifically this theory, have for me as I attempt to make practice decisions in service of another?"

While this question may be challenging to answer, it must be asked. This question can serve as a guide to extracting meaning throughout this text. It is a question that we feel will not only be answered in the following pages but in a way that makes you a more effective counselor.

Uniqueness of the Counseling Profession Identity

Professional counseling has been defined as "the application of mental health, psychological, or human development principles, through cognitive, affective, behavioral or systemic **intervention** strategies, that address wellness, personal growth, or career development, as well as pathology" (American Counseling Association, 1997). Further, as noted in the **ACA Code of Ethics**, counselors are dedicated to promoting human growth and development across the lifespan, engaging in developmentally appropriate practices, and acting as advocates against any barrier that limits human development (American Counseling Association, 2014). Professional counselors have distinguished themselves among helping professionals by focusing on different aspects of human growth and development over the lifespan. It is in our DNA and is the core of our professional identity.

Note: The American Counseling Association's (ACA) Code of Ethics began to undergo a significant update in 2024, reflecting the evolving landscape of counseling practice. This revision aims to address contemporary challenges and incorporate new insights into ethical counseling. The draft of the new code will go out for review by stakeholders in fall 2025, be edited, and then submitted to the Governing Council for adoption no later than fall 2026.

In contrast to other helping professionals, counselors dedicate their lives to wellness, prevention, and personal growth and development. This is not to suggest that we are not engaged in processes that help those experiencing significant disruptions to their lives. Certainly, as counselors, we engage in remediation and therapeutic interventions with those who present with problems, dysfunctions, or pathology. However, even when counselors serve in that capacity, they seek to not only assist clients back to the path of stability but to do so in a way that prevents future disruption and promotes or fosters their clients' ongoing wellness and development.

Essential to Counseling Practice

As noted earlier, counselors engage in practices that foster ongoing wellness and development and act as advocates against barriers that limit human development. Such a professional calling or mission is both noble and valuable. However, this mission is clearly impossible to fulfill without the following:

a. professional knowledge of the nature of human development across the lifespan,

b. the understanding of both normative and exceptional challenges that can be and are experienced, and

c. the use of research and theory on human development to guide professional practice decisions.

Without a complete understanding of what defines the nature of human development across the lifespan, counselors would be unable to discern that which is normative from that which is a deviation or to engage in processes that continue to support healthy development or intervene when behaviors are less than healthy or optimal. Knowledge of the theory, principles, and human development research is essential to professional counseling practice.

Guided Practice Exercise 1.1 highlights the value of understanding human development when confronted with client concerns. As you review this exercise, ask yourself whether knowledge of human development would influence your responses.

A counselor must understand the various elements and processes that impact human growth and development to be effective and truly understand one's client. It is important to understand how factors such as an individual's experiences, life maturation processes, and **culture** shape their life at any stage of human development. Further, it is important to know

a. how individuals cope with and make sense of their environment and surroundings,

b. how they use their learning experiences to cope with adversity and stress,

c. how they develop resilience and coping skills, and

d. how all of this could be affected by gender, cultural, physical, psychological, and sociological factors.

Integrated in Our Studies

Understanding human development is crucial, and most professional bodies or associations require formal training in developmental theory and research. For example, CACREP, the premier accreditation body of counselor education programs, has articulated standards (see Box 1.1) and requires its accredited programs to include at least a course in human growth and development in their curricula (Council for Accreditation of Counseling-Related Educational Programs, 2024; Korsmo et al., 2009).

BOX 1.1: CACREP 2024 HUMAN GROWTH AND DEVELOPMENT STANDARDS

Lifespan Development

1. theories of individual and family development across the lifespan
2. theories of cultural identity development
3. theories of learning
4. theories of personality and psychological development
5. theories and neurobiological etiology of addictions
6. structures for affective relationships, bonds, couples, marriages, and families
7. models of resilience, optimal development, and wellness in individuals and families across the lifespan
8. models of psychosocial adjustment and adaptation to illness and disability
9. the role of sexual development and sexuality related to overall wellness
10. biological, neurological, and physiological factors that affect lifespan development, functioning, behavior, resilience, and overall wellness
11. systemic, cultural, and environmental factors that affect lifespan development, functioning, behavior, resilience, and overall wellness
12. the influence of mental and physical health conditions on coping, resilience, and overall wellness for individuals and families across the lifespan
13. effects of crises, disasters, stress, grief, and trauma across the lifespan

Source: Council for Accreditation of Counseling-Related Educational Programs (2024).

The parts of the CACREP Standards that SAGE Publications, Inc. reproduces in its work represent only selected parts of the 2024 CACREP Standards; that inclusion of the CACREP Standards in the SAGE Publications, Inc. Work is in no way intended to imply CACREP endorsement or approval of the SAGE Publications, Inc. Work and that use of the SAGE Publications, Inc. Work as a teaching tool does not establish or connote compliance with CACREP Standards for purposes of determining CACREP accreditation of any education program.

GUIDED PRACTICE EXERCISE 1.1: REFLECTIONS ON SPECIFIC BEHAVIORS

Below is a description of a specific behavior. Reflect on the questions, and consider the changing nature of your response as additional (developmental) data are provided.

Situation 1: Your client presents as noncommunicative, has poor social skills, and appears as if totally occupied by and within their own mental constructs and fantasies.

a. Do you feel this client is in need of counseling?
b. If engaged in counseling, what might be a target or goal for the intervention?
c. What type of approach might you try?

How might your responses change if you knew the following?

a. The client is 9 months old.
b. The client is 14 years old.
c. The client is 41 years old.

Situation 2: The client presents with behaviors related to dressing up in female attire. The client is particularly attracted to feminine undergarments and has been reported to have been stimulated while wearing these garments.

a. Do you feel this client is in need of counseling?
b. If engaged in counseling, what might be a target or goal for the intervention?
c. What type of approach might you try?

How might your responses change if you knew the following?

a. The client is a 13-year-old female.
b. The client is a 27-year-old male.
c. The client is 4 years old (gender unknown).

Situation 3: Your client has been described as sullen, moody, withdrawn, and exhibiting a dark side that includes focusing on issues of death and dying.

a. Do you feel this client is in need of counseling?
b. If engaged in counseling, what might be a target or goal for the intervention?
c. What type of approach might you try?

How might your responses change if you knew the following?

a. The client is a 14-year-old self-described gothic male.
b. The client is a 27-year-old postpartum female.
c. The client is a 96-year-old patient with cancer.

Even without a specific course in human development, the value of this information is evident because numerous courses within the counseling professional training experience find grounding in human development theory and research. For example, consider the following brief sampling of course titles typically found in a counselor education program. Although these courses are unique, each offers insight into the nature and dynamics of human development and provides critical information to understand better the nature and needs of individuals at all developmental levels in a diverse cultural and psychosocial context.

1. **Counseling Theory:** theories of human and personality development, including how genetic, psychosociological, neurobiological, and cognitive factors contribute to behavior and learning development.
2. **Family Counseling:** theories of family and individuals as related to the transition across the lifespan.
3. **Abnormal Psychology:** theories of human behavior, both normal and abnormal behavior, to be affected in the development stages of happiness, sadness, loss, crises,

health, disability, and situational and environmental factors that may contribute to growth and development stages.

4. **Addiction:** theories of addictions and addictive behaviors, including strategies for prevention, intervention, and treatment.
5. **Counseling Intervention and Prevention:** theories for the study of facilitating optimal development, enhancing **quality of life**, and maintaining wellness over the lifespan.
6. **Crises Intervention:** theories of individuals, families, and communities coping with disasters and post-traumatic stress and how resilience contributes to the transition of healing and recovery.
7. **Assessment:** theories of psychosocial, cultural, and economic contributions to the **holistic** assessment of human growth and development.
8. **Theories of Counseling and Psychotherapy:** theories that guide proper diagnoses and appropriate counseling treatment to enhance and optimize the counseling outcome, all placed within the context of the human condition and normative challenges.

The recognition by accrediting bodies of the need for and value of knowledge of human development, along with the integration of developmental principles and concepts throughout the counselor education curriculum, speaks to the value of this knowledge for professional practice. As you continue with your training and reading this chapter, we hope you will come to see that it is more than the knowledge gained by studying human development across the lifespan. As you begin to understand the complexity of human development, we intend that you will also develop an increased appreciation for and value of uniqueness and commonality, strength and vulnerability, and the simple wonder of the human condition.

THE COMPLEXITY OF HUMAN DEVELOPMENT

Human development, while natural, is very complex and multidimensional. It means developing mentally and socially through growing and experiencing life and learning new things throughout the lifespan. As such, the study of human development is challenging and requires an in-depth analysis of the processes that contribute to change while maintaining stability, as uniquely experienced and evidenced throughout one's lifespan. The study of human development attempts to define the elements that contribute to the healthy and less-than-healthy unfolding of the human condition. Identifying and defining all the factors that come together to stimulate growth, development, and change in what is anticipated to be an orderly fashion is quite a task.

The magnitude and complexity implied by the previous statement may be lost to our understanding unless we take time to reflect on our own experience of human development. Consider the apparent seamlessness and fluidity of moving from a two-celled organism to a state of infancy, sleeping in a cradle and depending fully on a caregiver, to the development of abilities such as walking, talking, remembering, imagining, hypothesizing, empathizing, and even reflecting on one's very being. Certainly, we all celebrate these markers of development, but

most of us also take them for granted unless or until something goes wrong. It is at those times of developmental disruption that we seek understanding. It is that need for understanding and following the direction for intervention that leads to the study of development through the lifespan.

New York's Times Square, known as the "Crossroads of the World," represents the numerous factors that impact human development, including socioenvironmental and multigenerational diversity.

Courtesy of the author.

Development: Change and Stability

For the purposes of this chapter and theme, *development* is defined as the orderly and sequential changes that occur with the passage of time as an organism moves and adapts from the very beginning until the end of life. These changes occur through complex interactions between processes that are biologically programmed within the organism and elements presented within the environment. These interactions transform the organism through the process of orderly, sequential change.

This interactive process is complex and multidimensional and not always clear-cut or easily understood. Guided Practice Exercise 1.2 highlights the complexity of this development process as it gives form to the intricate interplay and interaction between biological and environmental processes.

Perhaps what is so uniquely human is that we remain in an unending state of development throughout our lifespan. As noted earlier, life is always an unfinished business, and death is its only cessation. Even having stated that change is the essence of the human condition, our understanding of human development highlights the fact that we exhibit stability during change, and the nature of this change is predictable.

Understanding this orderly, sequential nature of human development not only allows us to understand when development has been thwarted, but it also provides us with the markers that serve as beacons to guide our decisions as we attempt to facilitate the continuation of healthy growth and development. As a simple illustration, consider the sequence of moving from

being an infant to being a toddler. When you reflect on this transition, what changes would you expect to observe? Would you assume increased mobility? Would language and social interaction improve? Would you be concerned if these changes were not evident?

While we can appreciate the realities of individual differences and the fact that development does not adhere to a rigid time structure, our knowledge of human development helps to establish markers denoting expected orderly sequential change, and our concerns are heightened when these changes do not occur.

Development: The Result of Interactive Forces

Human development involves growth, maintenance, and regulation of loss and is constructed through the interaction of biological, cognitive, sociocultural, environmental, and individual factors working together interactively throughout one's lifespan. Human development is both multidimensional and multidirectional. Our development reflects the internal direction of our biological substrate while at the same time being responsive to environmental and contextual demands. Throughout it all, our development as humans demonstrates a unique plasticity that allows each of us to adapt and promote positive change when confronted with challenges (Baltes & Smith, 2003; Baltes et al., 2006a).

GUIDED PRACTICE EXERCISE 1.2: HUMAN DEVELOPMENT: A PRODUCT OF COMPLEX INTERACTIONS

To more fully appreciate the complexity of human development, respond to each of the following questions. After responding, read what is presented. Was this a surprise? Did it change your view? Does it highlight the interactive and complex nature of development?

1. **Identical Twins:** Identical twins share the same genetic makeup and thus share physical traits. Many have tried and proved successful in fooling friends and family who may confuse their identities. Can they fool a forensic specialist by employing fingerprint analysis?
2. **Sex Role Behaviors:** Much has been written and discussed about the development of sex role behaviors. Some emphasize the cultural influence of boys learning to be boys and girls enculturated to be girls. Others have pointed to the influence of the unique *XX* and *XY* genetics. What is your position: nature (genetics), nurture (cultural influence), or perhaps something else?
3. **The Adolescent Brain:** It is likely that you have read about or heard discussions about the storm-and-stress nature of adolescence, which depicts adolescents as hormonally driven, emotional, unpredictable, and impulsive. Some have argued that the emotional and social liability and upheaval experienced in adolescence is a function of biological/hormonal changes. In contrast, others suggest that it is merely a function of adolescents' frustration of being socially between childhood and adulthood. What is your position?

Here are some additional data for consideration. Does the following information reshape your initial opinions or expand your view of the complexity of these developmental issues?

1. **Identical Twins:** While identical twins could undoubtedly be said to be genetic carbon copies, their fingerprints are not. Research shows that the fine details of ridges, valleys, and swirls that define one's fingerprints are influenced by random stresses experienced in the womb. Even a slightly different umbilical cord length can change one's fingerprints.

2. **Sex Role Behaviors:** Research provides evidence regarding the prenatal influences of gonadal steroids on human sexual orientation, as well as sex-typed childhood behaviors that predict subsequent sexual orientation. The evidence supports a role for prenatal testosterone exposure in the development of sex-typed interests in childhood, as well as in sexual orientation in later life, at least for some individuals. However, other factors, in addition to hormones, appear to play an important role in determining sexual orientation. These factors have not been well characterized, but possibilities include direct genetic effects and effects of maternal factors during pregnancy. Although a role for hormones during early development has been established, there may also be multiple pathways to a given sexual orientation outcome, and some of these pathways may not involve hormones.
3. **The Adolescent Brain:** Some of the most exciting new discoveries in neuroscience focus on adolescent brain development. Researchers now know that the adolescent brain is different from an adult's brain and that development continues well into a person's 20s. One finding sheds light on the characterization of adolescents as dramatic and overly emotional. Neuroscience research has shown that adolescents process information differently than do adults. While adults usually rely on the frontal lobes, the center of reasoning and language, to respond to situations, adolescents rely more on the amygdala, which controls a wide range of emotions. As a result, teens are more likely than adults to respond emotionally to a situation.

The complexity of developmental interactive forces and the interaction of elements can be seen by simply considering a child's initiation into the world of crawling (see Case Illustration 1.1).

CASE ILLUSTRATION 1.1: TRANSITIONING TO CRAWLING

The simple act of initiating crawling highlights the multidimensional and multidirectional nature of development as well as the unique contribution of biological and environmental forces. An infant's engagement in crawling not only signals impressive changes that have occurred but also serves as the source, or the impetus, for additional change to come. Crawling is evidence that the infant is strong enough to sit and support themself on hands and knees. Crawling indicates the infant's ability (and environmental support) for risk-taking, even when the risk is to trust one hand or one knee being placed one before the other. Once the infant is engaged, crawling contributes to the infant's ongoing development. Crawling contributes to the development of balance, to the practice of bilateral motion, and to the strengthening of muscles that will eventually be used in walking. The increased mobility afforded by crawling provides the infant with increased, and sometimes scary, independence. Being able to move, sit, and hold the body stable and erect changes the infant's visual perspective and invites new experiences, which in turn stimulates new cognitive development. Increased mobility results in increased social interaction, such as playing with the family pet or siblings or responding to parents and caretakers who encourage the infant to crawl while at the same time removing obstacles and potential danger.

Guiding Considerations for the Counselor

What appears to be such a small thing moving—from sitting up to learning and trusting to rock back and forth to eventually finding the ability to push off one's knees to become a crawler—is anything but simple or small. The effects of engaging with these new competencies impact physical development, cognitive development, social engagement, and even the development of a worldview with its joys and risks.

Case Illustration 1.1 is undoubtedly simple but, upon reflection, dramatically poignant. The subtle yet impacting interplay between the infant's internal drives, developing muscles, perceptual awareness, environmental supports and encouragers, and the leap of faith exhibited in those first few movements speaks to the multifaceted and multidimensional nature of our development. Further, in reviewing the illustration of the crawling infant, it becomes apparent that these forces are often bidirectional, where biological influences can affect the development of cognition and vice versa.

This bidirectional quality becomes apparent when one considers what is required and what results from developing the ability to speak, to reflect on one's thoughts, to balance and ride a two-wheeled bike, or to feel sympathy, empathy, or loss. Each of these new abilities serves as both the result of the complicated process called development and at the same time is the stimulant, contributor, and even foundational element for what is to follow.

Development: A Lifespan Perspective

There was a time when we viewed children as merely miniature replications of adults. Early pictorial presentations of children, at least those before the 17th century, showed them in adult dress, with eerily adult facial features—truly mini-adults. It has been argued that the idea of *childhood* was a social creation that appeared during the 1600s (Cunningham, 2006). It is not until the 1600s that we see evidence of children being presented as unique and different from adults. Thus, the study of human development prior to the 1600s would have focused simply on adult experience, generalizing that experience to children as miniature expressions of adults. It could be argued that, somewhat reactively, once childhood was viewed as a unique stage of development, the pendulum swung too far to the emphasis on childhood experience as if development ended with one's passage to adulthood from adolescence.

We now understand that while these early years and experiences are critical, they are not the entire story. As will be presented in the upcoming chapters, research has provided us with ample evidence of the continuing nature of our development. Our developmental journey and the changes encountered as we move from childhood to old age are not merely changes in quantity but changes in quality.

Cognitively, for example, an adult not only has more information stored (i.e., quantity) but is also able to employ that information in ways (e.g., hypothetico-deductive reasoning) that are qualitatively different from those used by a school-age child. Similarly, the socioemotional motives that drive people in their 30s are qualitatively different from those that direct life and decisions for people in their 70s. Our development (i.e., the adjustments we make and the changes we experience) is truly a lifelong process (Charles & Carstensen, 2010; Hoyer & Roodin, 2009).

Lifespan: A Series of Human Developmental Periods

In the upcoming chapters, you will see how the interplay between biological, cognitive, and socioemotional processes that impact development takes on unique characteristics as defined by specific time frames within a person's life. These time frames, or developmental periods, are marked by the appearance of unique features, tasks, capabilities, and challenges. For this text's organization, we have identified 11 periods where developmental changes and challenges appear to be somewhat unique. Table 1.1 provides a classification of these periods of human development.

The journey of human development, from infancy to elderhood, continues to evolve during the lifespan.

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TABLE 1.1 ■ Periods of Human Development

Period	Estimated Age Range	Description
Conception/ prenatal	0	Period involving rapid and extensive growth from a single cell to a human with neurological capabilities
Infancy	Birth to 12 months	While highly dependent, the development of language, symbolic thought, social skills, and modeling takes place
Toddler	1 to 3 years (overlap)	Increasing mobility and independence; "the terrible twos"
Early school age	4 to 5 years	Increasing self-sufficiency, peer interest and interaction, and school-readiness skills
Middle childhood	6 to 12 years	Achievement drive becomes evident; the fundamental skills of reading, writing, and arithmetic are mastered
Early adolescence	13 to 17 years	Rapid physical changes and the development of sexual characteristics; increased peer interaction and influence; cognitively moving into formal, abstract reasoning
Late adolescence	18 to 24 years	The pursuit of independence (socially, psychologically, and financially) and the desire to identify vocational direction and personal identity
Early emerging adulthood	25 to 35 years	Focus on establishing personal and economic independence, career development, and, for many, selecting a mate, possibly starting a family, and rearing children
Middle adulthood	36 to 60 years	While maintaining a satisfying career, interest turns toward social responsibility and assisting the next generation
Late adulthood	61 to 75 years	Adjusting to post-work identity and retirement; adjusting to challenges of changing health
Oldest-old elderhood	76 years and older	Reflection and life review: preparing for the end of life

The age categories designated for each chapter in this book were based on a comprehensive review of the literature and the study of all relevant sources related to this topic, including national and international organizations. It is by no means that these categories in each chapter represent the universal definition of age categories. Age categories are not universal because they are influenced by various factors, including social, cultural, and legal contexts, as well as the specific research questions or goals being addressed, the need for different levels of detail in data collection and analysis, and variations according to national and international standards. Various countries and societies have different interpretations of what constitutes different stages of life, and legal frameworks often set different age-related milestones (Maung, 2021). As an example, according to the United Nations (2025), there is no universally agreed-upon international definition of the youth age group. For statistical purposes, however, the United Nations—without prejudice to any other definitions made by member states—defines *youth* as persons between ages 15 and 24 years.

As you scan these periods of development, begin to consider the challenges, those tasks encountered by an individual at each period, and the role that you, as counselor, could play in facilitating the individual's development through that period. Your thoughts on these issues will take greater form as you proceed in your reading.

Development as Contextual

While Table 1.1 points out some generalized tasks or challenges confronting individuals at each period of their development, the nature of the challenges, as well as the quality of the responses, can be influenced by the context in which the development is occurring. Consider the situation of two individuals entering a late-adult period of their development. Imagine that one has a healthy retirement plan, excellent physical health, the support of an intimate partner and extended family, and job-related health benefits. Addressing the tasks of this period will be different for that individual as opposed to one who is without family support, is living on Social Security and food stamps, and must employ emergency hospital services as their only form of health care. These are contextual variables, and they clearly impact the continuity of development.

Whether it is our local neighborhood or global community, our development occurs and is influenced by the setting and conditions as context. Factors such as culture, ethnicity, social values, histories, and economics come into play in the unfolding of our personal stories. We are developing, but we, as people of the 21st century, are developing in a different context than that of our **ancestors**. As such, when viewing development, one must appreciate the influence that context contributes.

According to Baltes and Smith (2003), context exerts three types of influences on human development:

a. normative age-graded influence that presents individuals as similar to those within their age group;

b. normative history-graded influences, such as the widespread impact of major sociopolitical events like World War, the civil rights movements, or even the terrorist attacks of September 11, 2001; and

c. nonnormative or highly individualized life events, such as the death of a loved one, the experience of being abandoned or abused, or even something like winning the lottery.

LIFE DOMAINS OF HUMAN DEVELOPMENT

As you proceed in your readings, you will see that the upcoming chapters discuss development by reviewing the theories and research targeting specific domains of development within the context of a particular developmental period. These domains refer to specific aspects of growth and change as noted in socioemotional, physical, linguistic, and cognitive development.

Healthy lifestyles, including good nutrition, contribute to healthier longevity.

Drazen Zigic/iStockPhoto

There are times when it appears that growth in one domain is dominant, even to the point of overriding development in other domains. For example, consider the case of the crawler who almost magically transitioned to taking her first steps. While the physical expression of this child's development may gather attention, the truth is that other domains are changing, perhaps more gradually and less prominently but changing nonetheless. The child's new physical capabilities interact and benefit from improved sensory perception, and they stimulate increasing cognitive development by infusing new experiences. Change across domains occurs often but sometimes not in obvious ways.

Consider the changes accompanying adolescence. While one can see and most certainly experience the physical changes (deepening of the voice, **physical development**, body hair growth, etc.) and emotional liability (adolescent moodiness) that accompany puberty, the cognitive changes that are occurring may be less apparent. Qualitative changes provide adolescents with an increasing ability to think about their own thinking and operate in the world of the hypothetical.

Development is a multifaceted process consisting of growth, regression, and change in many different domains. Understanding the uniqueness of these changes across domains, as they take form at different chronological periods of development, is essential if counselors are to know what is *normative* and what to do when help is needed.

A BIOPSYCHOSOCIAL APPROACH

For years, the question of the degree to which our development is the product of our biological inheritance or our lived experience has been debated. The question of nature (biological forces) versus nurture (environmental/experiential/learning forces) and the influence of each continues to rear its head, especially when addressing issues of intelligence and behavioral aberrations. Do we write off developmental variations and deviations as a function of the luck of genetics, positioning ourselves somewhat impotently on the sidelines and allowing nature to run its course? Or do we argue for sociopolitical and environmental changes that will ensure the proper nurturance for all in the human condition? Is it really that simple: either nature or nurture? A review of the literature and research outcomes tells us that it is not.

As noted earlier, human development is complicated. It is multifaceted, multidimensional, and contextual. At any one point, our development is the result or outcome of the interaction of biological, cultural, and uniquely personal factors (Baltes et al., 2006b). As such, development should be viewed and studied from an interactive perspective, valuing the influence of biology, psychology, and social context in the same environment.

In the upcoming chapters, the unique biological conditions, cognitive capabilities, and psychosocial and emotional dispositions characteristic of a specific period of development are discussed. Further, research highlighting the factors both positively and negatively affecting

development through that period of one's life will also be discussed. Throughout each chapter, the unifying theme is that changes occurring in any one domain do not happen in isolation; rather, each affects the other, and the outcome of development is the result of the interplay between these various factors. This integrative model is not new.

George Engel (1980) was one of the pioneers in bringing an integrative model to the field of medicine. Engel formulated the biopsychosocial model as a dynamic, interactional view of human experience in which there is a mutual influence of mind and body by way of the interactive forces found within the biological, psychological, and sociocultural systems.

Consider the issue of heart disease (Engel, 1977). While it is true that there is a **pathophysiological** component to heart disease (biological system), this biological state is often the end point of a large variety of sociocultural and psychological factors impinging on the **cardiovascular system**. Thus, it is important to view the condition not only from a perspective of the client's genetic vulnerability or biological makeup but also through the perspective of social and cultural conditions (e.g., poverty, nutrition, marginalization, etc.) or psychological dispositions (e.g., lifestyle choices, stress encounters, and stress management strategies). It is in employing all systems—biological, psychological, social, and cultural—that one gets a full and accurate understanding of what is and what needs to be done.

Biological System

The biological system, as we know it, consists of a group of organs that work together to perform specific tasks. When applied to the biopsychosocial model, the need is to investigate how the biological or neurological basis affects human growth and development with respect to behavioral issues—that is, how each individual responds to their world or has different levels of neurotransmitters in the brain. As such, the biological component of the biopsychosocial model seeks to understand how the functioning of one's body, or biological system, contributes to the developmental difficulties encountered.

Psychological System

The psychological component of the biopsychosocial model looks for potential contributions from psychological issues that have caused or contributed to developmental difficulty and result in mental and physical health problems, including issues such as **irrational thinking**, emotional distress, lack of self-control, and **excessive distress** (Ilham, 2000).

Sociocultural System

The biopsychosocial model's social system aspect directs one to consider how various social contextual factors, such as social environment, interactive patterns, SES, culture, family structure, and religion, contribute to healthy or unhealthy development. The social system draws attention to the effects of patterns of social roles and norms as well as the timing and sequence of important life events.

Application to Counseling Skills

The perspective gained from such a biopsychosocial model of development is that normative growth and development, as well as pathology, are influenced by a number of factors. For example, age-graded sociocultural factors (race, ethnicity, family, educational setting, friendships, religion, peer pressure, etc.), age-graded biological factors (puberty, maturation, menopause, etc.), historical factors (natural disasters, wars, etc.), and nonnormative factors (death of siblings, death of a child, early death of parents, etc.) contribute to the formation and development of any one individual at any one of their developmental periods.

This integrative approach parallels what we know about the multidimensional and integrative nature of development and thus will be integrated throughout the upcoming chapters of this book. While investigating the uniqueness of the human experience as encountered at each of the periods of development, the focus will remain on understanding the interplay of the biological, psychological, social, and cultural processes contributing to that uniqueness and promoting growth and development through that period. We believe that understanding lifespan development in the absence of its biological substrate, psychological components, and sociocultural context is not possible. This is brought to life in the presentation of Charlie's case, which highlights the biopsychosocial model as it depicts the elements contributing to the client's well-being (Case Illustration 1.2).

CASE ILLUSTRATION 1.2: BIOPSYCHOSOCIAL CONSIDERATIONS

Charlie is a 28-year-old Caucasian female presenting with symptoms of possible depression and anxiety. Charlie reports that her boyfriend, Jack, asked her to marry him 2 months ago, but she has not yet accepted the proposal. Ever since, she has been feeling anxious, overeating, and sleeping 10 to 12 hours at a time. Charlie has been withdrawn from her friends because she knows that they do not support her relationship with Jack, as they believe that he has alcoholism and has abused her. She also lacks interest in her work, has been taking numerous days off, and has demonstrated very low performance in her job duties. Charlie grew up in a very rigid and religious family. She states that her parents are very supportive of her, but they were always very critical of her while she was growing up. Her father is very authoritative, and he is also a heavy drinker. While drunk, he often exhibits extremely violent and abusive behavior toward his wife and Charlie. Charlie's relationship with her mother is strained because Charlie is critical of her father's behavior and often voices her disapproval of her father's actions toward her mother. Charlie reports that her relationship with Jack has been rocky, with multiple breakups and a history of heated arguments. Jack becomes extremely violent when intoxicated, and it reminds her of her father's behavior and how that affected her family. Charlie's religious beliefs cause her to feel guilt over her father and Jack's drinking problems. She reports having a few good friends whom she sees "from time to time." She expresses that she can "rely on them to vent her frustrations" but has recently "pulled back from them" because they disapprove of her relationship with Jack. Charlie and Jack have a history of domestic violence. She reported one incident of domestic violence to the police, in which Jack was arrested and referred to participating in anger management counseling. Although there has not been an incident since then, Charlie is worried that he might do it again when he drinks. Charlie reports no homicidal ideation, plan, or intent to do so. She also denies any personal alcohol or substance abuse.

In summary, Charlie is presenting symptoms of depression and anxiety. The symptoms and findings are prominent and clinically significant: oversleeping, overeating, isolative behavior, and feelings of anxiety. The symptoms are relatively acute. Protective factors include a supportive mother and friends, as well as Charlie's insight and motivation for treatment. Significant biopsychosocial stressors include absences from work and her relationship with her supervisor and coworkers. Other stressors include her relationship with her boyfriend, Jack, and her traumatic experience while growing up with an abusive alcoholic father, a demanding mother, and a history of domestic violence with her father and her boyfriend.

Reflection and Discussion Points

Please reflect on the vignette and discuss the following with your instructor and colleagues.

1. Highlight the biopsychosocial variables that you feel contribute to Charlie's depression, anxiety, and other concerns.
2. You may want to use this case for role-playing activities in class and discussion purposes.

HUMAN DEVELOPMENT KNOWLEDGE APPLIED TO COUNSELING

The developmental psychologist Lawrence Kohlberg believed that counseling is important for the development of both the counselor and the client. Kohlberg's explanation for this relationship was established in his moral development theory, originating from his earlier work and writings on **moral development** and moral education that were applied to the process of schooling, particularly as it relates to teaching and not counseling. After studying Jean Piaget's views on the **cognitive development** of children's thinking about the physical world, Kohlberg asserted that all the fundamental processes involved in physical cognition in stimulating developmental changes are fundamental to social development (Kohlberg, 1969). He further asserted that the counseling process between a counselor and a client is a fundamental social activity, and thus, this process should be considered a developmental process of social interaction. Kohlberg also believed that the skill of listening requires empathy and role-taking, which are important for both moral and psychological growth between the counselor and the client. Kohlberg offered the view of **progressivism**, which encourages the nourishment of the individual's natural interaction with a developing society or environment, and cognitive-developmental psychology as compared to other theories offered.

While the case has been made for the value of a counselor's understanding of human development, as they differentiate normative from problematic development, what might also be obvious is that knowledge of those factors impeding development positions a counselor to serve as an advocate or agent of prevention.

As you read on and begin to identify those biological, cultural, environmental, and psychological forces that influence one's development, it will become clear that some individuals, by nature of their conditions of birth or circumstances of life, are more vulnerable to the interferences of healthy development. Whether it is the absence of prenatal medical care and nutritional support, or the bullying violence experienced by a teen, some individuals encounter stressors that exceed their ability to cope and thus impede development. Environmental pollution, infectious diseases, poverty, the absence of early childhood stimulation, or the experience of abuse and abandonment are only a few of the more dramatic forms of assault on human development that many people experience. While these are noted and noteworthy, some threats can be much more subtle yet just as insidious. Consider the situation of a student experiencing undue pressure to succeed, a young adult displaced without social support, or an aging adult confronting physical limitations and medical needs within restricted financial resources. All these conditions restrict individuals' ability to enjoy their current state of development and grow to the next.

As you begin to more fully understand the natural challenges experienced throughout the various periods of development, you will also come to appreciate those factors and elements that can facilitate and support healthy growth and development. With that knowledge, you will be better positioned to not only intervene as a counselor when called upon but also to proactively engage as an advocate for those who need your support.

The objective of this textbook is to present human growth and development from a counseling perspective and to show how this unique perspective can be applied throughout the lifespan of individuals. As discussed in this chapter, to define human development is to define the growth of humans throughout their entire lifespan. The principle of the study of human development is to understand and explain how and why people change throughout their lifespan. This includes all aspects of human development, including psychological, physical, emotional, intellectual, social, perceptual, and personality development. These are all variables to be taken into consideration for effective therapeutic intervention. There is an urgent need to augment research in these areas of the field and place this knowledge in the hands of educators and students.

Understanding human development is important for having a clear concept of how factors such as life experiences, life maturation processes, and changes over time, including cultural implications, shape the stages of human development. This process also includes the following:

a. how individuals cope with and make sense of their environment and surroundings;

b. how individuals use their learning experiences to cope with adversity and stress;

c. how individuals develop resilience and coping skills affected by gender, cultural, physical, psychological, and sociological factors;

d. how individuals behave and perceive life expectations; and

e. how life events, changes, transitions, and transformations form from one stage to another to contribute to individuals' identity and integration into their community and society.

This is a complex process with multiple factors that are all equally important, and they need to be emphasized not only during counselor training but also during counseling practice.

Human development awareness is about creating an environment in which people can develop their full potential and have a healthy, active, creative, and productive lifestyle. The advancement of science and technology has contributed significantly to the acceleration of human progress during the past decades. According to many recent studies, although modernization, globalization, and technological advancement are generally suitable for societies, they can also create many disadvantages for some sectors of the population (UNDP, 2024a). Some individuals are more vulnerable to the broader effects of environmental degradation and social problems because of more significant stressors and fewer coping tools that weaken resilience. Vulnerable individuals must also deal with immediate environmental threats of pollution, contaminated water, and unimproved sanitation. Forecasts suggest that a continuing failure to reduce grave environmental risks and deepening social inequalities threatens to slow decades of sustained progress by the world's low-income majority and can even reverse the global convergence in human development. This is perhaps an urgent warning to develop and strengthen the safety networks of society to make sure that they reach everyone and prevent the physical and mental decline of all people. The counseling profession, with its many roles in working with, assisting, and advocating for its clients, has a responsibility to act and contribute (UNDP, 2024a).

The challenges ahead for counselor education are numerous. However, the most significant challenges are to

a. conduct more evidence-based research on the relationship between counseling and human development through the lifespan;

b. to conduct research with cultural responsibility in reference to the increased cultural and ethnic diversity among populations in the United States; and

c. to explore and study the interaction among learning, physical ability, cultural influence, SES, environmental and ecological factors, genetic composition, and biopsychosocial implications with respect to human development through the lifespan.

The world has become a global community, and the proliferation of cultural and knowledge exchange among peoples and nations has provided significant incentives for researchers and scholars to study human development. We must use a multidimensional and multilevel

perspective with respect to cultural, psychological, and sociological factors. Professionals such as counselors today and in the future need to continue to apply and promote the study of human development throughout the lifespan. It is essential not only to understand human development to understand the individual but also to acquire knowledge of individual differences, abilities, disabilities, and other diverse characteristics that can enhance and optimize the outcome of counseling services.

SUMMARY

- Human development is an interdisciplinary field dedicated to understanding human constancy and changes throughout the lifespan.
- The study of human development requires a comprehensive and systematic approach.
- The study of human development involves the explanation of both change and continuity.
- The field of human development has four major goals: (a) to describe the changes that occur across the human lifespan, (b) to explain these changes, (c) to predict developmental changes, and (d) to intervene during events to control them.
- It is important to discuss human development through the lifespan perspective, consisting of the multidimensional, multidirectional, multidisciplinary, plastic, and contextual development of humans.
- The domain of human development refers to specific aspects of growth and change, and the major domains of development include psychosocial, emotional, physical, language, and cognition.
- Understanding human development is important to the counselor's competence because this knowledge will enhance the counselor's ability to apply best practices during the client's particular life stage and to serve as an advocate for those who need advocacy.

KEY TERMS

ACA Code of Ethics
ancestors
artificial intelligence (AI)
biogenetic law
cardiovascular system
cognitive development
conception
Council for Accreditation of Counseling and Related Educational Programs (CACREP)
culture
development
discipline
excessive distress
genetic traits and composition
human development
human growth
intervention
irrational thinking
lifespan
maturation
moral development
pathophysiological
physical development
progressivism
quality of life
scientific inquiry
World Health Organization

ADDITIONAL RESOURCES

Recommended Supplemental Readings

Adams, M. (2006). Towards an existential-phenomenological model of lifespan human development. *Existential Analysis, 17*(2), 261–280.

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2 THEORIES OF HUMAN DEVELOPMENT

We know what we are but do not know what we may be.

William Shakespeare

Consider this quote by William Shakespeare from the perspective of a person unfamiliar with human development and the multiple changes of transformation that occur from birth to the future. Imagine looking at newborn babies bundled in blankets, resting peacefully in their bassinets. You may know what you see, but you are unable to understand what may be.

Through observation, there is a difference in the babies' size, shape, skin tone, activity level, and even the degree to which hair is present. Some may be quietly sleeping with their eyes closed, while others may clearly be stressed, red-faced, and screaming. Again, observers would know what they see but certainly would be hard-pressed to describe what may be.

While the process of developing from the joining of two cells to what now appears in a flesh-and-blood bundle in a nursery is quite an excellent, complex, and intricate affair, the complexity and intricacy do not cease at birth. Ask yourself, which of the bundled babies will become a president, a CEO, or a notorious criminal? Which one of those sleeping or crying may fail to thrive or develop significant physical, intellectual, social, or emotional challenges? Which of these birth classes will be tall or short, slim or obese, athletic or academic, or artistic or skilled with their hands? Which of those present at that moment will navigate life feeling good about themselves, accomplishing that which they desire, and reflecting at the end on a life fulfilled? These are the questions that the observer may ponder, along with one more: What are the factors, elements, and processes that give shape or contribute to that which will become?

These questions are offered to ponder the same questions we may have while expanding our knowledge. If we knew what was to be and what factors gave shape to that future scenario, then we would be better positioned to intervene when dangers and barriers were clearly present and to support those conditions that facilitate optimal development. Moreover, while we know so much more about those factors, there is much to research, investigate, and discover.

As noted in Chapter 1, human development is complex. It is multidimensional, multidirectional, contextual, and, in many ways, quite idiosyncratic to each individual. These characteristics make human development challenging to know factually and to study. This chapter introduces the theories and research methodologies that are leading us to a more complete and accurate understanding of the nature and conditions of human development. Specifically, after studying this chapter, you will be able to

1. describe the general focus of eight main theories of human development: maturationist theory, psychoanalytic theory, Erikson's psychosocial theory, behaviorism theory, Bandura's social learning theory, cognitive development theory, biopsychosocial theory, and ecological systems theory;

2. identify the Piagetian stages of cognitive development as they appear at different periods of development;
3. describe the psychosocial tasks experienced at each period of development as described by Erickson;
4. explain the methods of research employed in the pursuit of knowledge and the validation of developmental theories; and
5. describe the fundamental ethical concerns and principles that guide research on human development.

Like most theories used in counseling, each theory can serve as a lens to view human development and guide practice decisions. As you review each theory, consider its implications for a counselor's intervention and prevention programming.

THEORIES AND THEORETICAL MODELS OF HUMAN DEVELOPMENT

The complexity of human development invites the creation of multiple perspectives and theories; some are global and grand, addressing principles that apply to every domain of development, whereas others are more domain-specific, focusing only, for example, on cognitive development.

Life adversity and how an individual copes with it impact the person's developmental stages and, ultimately, their quality of life.

Courtesy of the author.

Theories provide a framework for studying human development that furthers scientific vision and stimulates the application of science to public policy and social programs. Most importantly, theories help organize a large body of information and provide ways of examining facts. They also help focus our search for new understandings, explain how findings are interpreted, and identify major scholarly disagreements (Dacey et al., 2009).

Maturationist Theory

Granville Stanley Hall (1844 to 1924) was a pioneering American psychologist and educator. His interests focused on childhood development, evolutionary theory, and their applications to education. Hall was a firm believer in the scientific method and its application to the study of human nature. He supported empirical research in the then-emerging area of child development, developing both theories of psychological development and their application to children's education. Although Hall's understanding was incomplete and his theories were not entirely accepted, his work was significant in laying the foundation for the field (Parry, 2006; Ross, 1972). His maturationist theory emphasized the importance of genetics and evolution. It was based on the premise that growing children would recapitulate the evolutionary stages of species development as they grew up. Hall concluded that pushing children ahead of their developmental stage would be counterproductive because each stage laid the foundation for what was to follow. In simple terms, his position was that everyone would need to crawl before learning to walk.

Psychoanalytic Theories

While much attention has been given to the psychoanalytic position on issues such as determinism, instinctual drives, and the unconscious, the early works of psychoanalytic theorists,

especially founder **Sigmund Freud** (1856 to 1939), highlighted the essential role played by early childhood experiences. Freud's position was that a person's psychological responses and behaviors were reflections of instinctual biological drives. Freud postulated that objects or means for satisfying our instinctual drive for pleasure shifted throughout our early years of development, moving from the mouth and oral stimulation to the anus and the experience of control, and eventually to the genitals and the inclusion of sex role behaviors and identification (see Table 2.1). Freud posited that during our childhood, our first 6 years, we developed ways to resolve conflicts between the desire for pleasure and the demands, often repressive, encountered. For Freud, it was this dynamic process of conflict resolution that he believed shaped one's development and later lifestyle (Freud, 1962). While contemporary psychoanalytic theorists have modified many of the tenets presented initially by Freud, emphasis on the importance of early childhood experiences, especially experience in and with relationships, continues to play a pivotal role in their understanding of adult choices and behavior. Table 2.1 demonstrates Freud's psychosexual stages of development from age 1 to 18 years and their implications for human development and growth.

TABLE 2.1 ■ Freud's Psychosexual Stages of Development

Stage	Age	Characteristics
Oral stage	Birth to 1 year	An infant's primary interaction with the world is through the mouth. The mouth is vital for eating, and the infant derives pleasure from oral stimulation through gratifying activities such as tasting and sucking. If this pleasure is unmet, the child may develop an oral fixation later in life, examples of which include thumb-sucking, smoking, fingernail biting, and overeating.
Anal stage	1 to 3 years	With the development of new cells and the control provided by those cells (sphincters), the focus shifts from oral stimulation to controlling bladder and bowel movements. Toilet training is a primary issue for children and parents. Too much pressure can result in an excessive need for order or cleanliness later in life, while too little pressure from parents can lead to messy or destructive behavior later in life.
Phallic stage	3 to 6 years	At this point in development, the focus of the id's instinctual energies shifts to the genitals. It is during this period that children develop an attraction to the opposite-sex parent. It is also at this period that children adopt the values and characteristics of the same-sex parent and form the superego.
Latent stage	6 to 11 years	During this stage, children develop social skills, values, and relationships with peers and adults outside the family.
Genital stage	11 to 18 years	During this stage, people develop a strong interest in the opposite sex, and the onset of puberty causes the libido to become active once again. If development has been successful to this point, the individual will continue to develop into a well-balanced person.

Erik Erikson's Psychosocial Development Theory

Unlike Freud, who focused on early childhood with an emphasis on biological instinctual urges as key to human development, Erikson presented a model emphasizing the challenges and tasks presented across one's lifespan. Further, unlike Freud, Erickson emphasized development from within a social context. Erickson's epigenetic theory focuses on behaviors' biological and genetic origins as interacting with the direct influence of environmental forces over time. He suggested

that this biological unfolding within our sociocultural settings occurs in stages of psychosocial development, where progress through each stage is partly determined by our success, or lack thereof, in all the previous stages.

Erickson theorized that humans pass through eight stages of development, each presenting the individual with a unique developmental task, or what he termed a "crisis" (see Table 2.2). Erickson felt that these psychosocial crises were based on physiological development interacting with the demands put on the individual by parents and society (Erikson, 1982; Stevens, 1983)

TABLE 2.2 ■ Erikson's Stages of Psychosocial Development

Stage	Life Stage and Age	Meaning and Interpretation
Trust vs. Mistrust	Infant (0 to 1½ years)	The infant will develop a healthy balance between trust and mistrust if cared for and responded to consistently. Abuse or neglect will foster mistrust. Positive outcomes consist of the development of hope and drive, while adverse outcomes could contribute to withdrawal.
Autonomy vs. Shame and Doubt	Toddler (1 to 3 years)	Autonomy means self-reliance or independence of thought and confidence to act for oneself. Toilet training is a significant part of this stage. Positive outcomes consist of willpower and self-control, while negative outcomes could contribute to compulsive behaviors.
Initiative vs. Guilt	Preschool (4 to 6 years)	Initiative means aptitude and self-confidence in performing actions, even when understanding risks and failure. Guilt results from abandonment or believing an action will draw disapproval. Positive outcomes foster purpose and direction, while negative outcomes encourage inhibition.
Industry vs. Inferiority	School-age (7 to 12 years)	Industry means having a meaningful activity and the competence to perform a skill. Inferiority means feeling incapable of experiencing failure or being unable to discover one's strengths. This stage is crucial in the school years. Positive outcomes foster competence, while negative outcomes encourage inertia.
Identity vs. Role Confusion	Adolescent (12 to 18 years)	Identity means understanding oneself and how one fits into the surrounding world, while role confusion focuses on the inability to understand oneself or one's personal identity. Positive outcomes foster fidelity and devotion, while negative outcomes encourage repudiation behavior.
Intimacy vs. Isolation	Young adult (19 to 40 years)	Intimacy means developing relationships with friends, family, and partners. Isolation involves feelings of being excluded from relationships or partnerships. These encompass sexual maturity, reciprocal love, support, and emotional connection. Positive outcomes foster love and affiliation, while negative outcomes encourage exclusivity.
Generativity vs. Stagnation	Adulthood (41 to 65 years)	Generativity means unconditional care for one's offspring or the future generations to come, while stagnation refers to self-absorption/concentration. Positive outcomes foster care and giving, while adverse outcomes encourage objectivity.
Integrity vs. Despair	Mature adult (≥65 years)	Integrity means an understanding of self and satisfaction with life, while despair contributes to feelings of wasted time, opportunity, and chances. Positive outcomes foster wisdom, while adverse outcomes encourage despair.

As you review the brief description of each of Erikson's stages of psychosocial development in Table 2.2, note how the resolution of any one stage may pave the way for subsequent stages. For example, the child who has difficulty developing a bare trust (trust versus mistrust, Stage 1) in their environment may find it difficult to risk engaging in the types of self-directed behaviors that would allow for a positive resolution to the autonomy versus shame and doubt stage (Stage 2).

The early years of schooling are major contributors to children's developmental stages.

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Behaviorism Theory

Whereas Erikson introduced the importance of social context to development, the behavioral theory (at least in its classical form) placed nearly sole emphasis on the impact of environment, experience, and learning about the unfolding development of the human condition.

John B. Watson (1878 to 1985), deemed the father of American behaviorism, emphasized the role of the environment in the shaping of human development, as reflected in the following statement:

> Give me a dozen healthy infants, well-formed, and my specified world to bring them up in, and I will guarantee to take anyone at random and train him to become any specialist I might select … doctor, lawyer, artist, merchant-chief … and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors. (Watson, 1998, p. 82)

That is quite a guarantee and highlights the value and focus that this behaviorist placed on the role of environment, experience, and learning in creating the human condition.

Two main themes or forms of behavioral theory explain how the environment has such a formational impact. One theme proffered by B. F. Skinner (1904 to 1990) suggested that behavior was formed or shaped because of the consequences experienced. His *operant conditioning model* argued that behavior followed by a rewarding consequence would be more likely to recur and endure than that followed by a punishing consequence (Cohen, 1987; Skinner, 1974). Thus, an infant who experiences the comfort of being picked up and cradled after crying is more likely to employ crying behavior in the future. An individual who has experienced ridicule after initiation of social contact may soon employ withdrawal and isolation as a developmental coping style.

The influence of behaviorism on the field of human development has been diminishing in recent years due to its commitment to the thesis that behavior is explained without reference to nonbehavioral and inner mental (cognitive, representational, or interpretative) activity. Over the years, many scholars and researchers have pointed out that the manifestation and characteristics of human behavior do not solely depend on an individual's reinforcement history. Many critics argue that behaviorism is a one-dimensional approach to understanding human behavior. Behaviorism focuses on what is observable and measurable, but there are other important contributors to human behavior, such as one's feelings, moods, thoughts, and emotions. Further, behaviorism does not account for other types of learning, especially learning that occurs without the use of reinforcement and punishment. Behaviorists believe that much of human behavior and learning ability is attributed to the effects of external factors that serve as reinforcers or punishers. However, many critics point out that not everything can be explained by outside influence. Behaviorism provides only a partial account of human

behavior and does not consider or explain important factors that can be objectively assessed (e.g., emotions, expectations, and higher-level motivation). This theory may compromise further research from another perspective that could uncover important factors that contribute to human development.

Social Learning Theory

A second behavioral approach to the explanation of the influence of environment on development was initially presented by Albert Bandura (1997, 2008) as a social learning theory. Bandura's social learning theory posits that people learn from one another via observation, imitation, and modeling. The theory has often been called a bridge between behaviorist and cognitive learning theories because it encompasses attention, memory, and motivation. Bandura's model expanded the classic behavioral theory to include cognitive elements. His work emphasized the importance of observational learning (also called *imitation* or *modeling*). For example, consider the situation of a child raised in an environment with much domestic arguing and physical violence and the employment of alcohol as a stress-reducing strategy. According to social learning theory, a child who is raised in this setting and observes these social exchanges and coping styles would be very likely to model the observed behavior and engage in similar domestic violence and alcohol use behaviors.

According to Bandura, Barbaranelli, Caprara, and Pastorelli (2001), social learning is connected to perceptions and interpretations of the individual's experience. Self-efficacy, the belief that personal achievement depends on one's actions, teaches people to have high aspirations and to strive for notable accomplishments when they see others solve problems successfully. This premise is contrary to behavioral theory, which holds that behavior depends on associations between one stimulus and another and assumes that all behaviors react from a chain of learned responses. In contrast, social learning maintains that behaviors come from people acting on the stimulation of the environment.

Social learning theory provides a more comprehensive explanation of human learning by recognizing the role of mediational processes in deciding whether a behavior is to be imitated. It is described as the "bridge" between traditional learning theory (i.e., behaviorism) and the cognitive approach because it focuses on how mental (cognitive) factors are involved in learning.

Unlike Skinner, Bandura believed that humans are active information processors and think about the relationship between their behavior and its consequences. Social learning theory focuses on how mental (cognitive) factors are involved in learning, and observational learning could not occur unless cognitive processes were at work. These mental factors mediate (i.e., intervene) in the learning process to determine whether a new response is acquired.

Bandura believed that individuals do not automatically observe the behavior of a model and imitate it. Instead, individuals have thoughts, called *mediational processes*, that occur between observing the behavior (stimulus) and imitating it or not (response).

There are four mediational processes proposed by social learning theory:

1. **Attention:** This is the extent to which we are exposed to/notice the behavior. We observe many behaviors daily, but many of them do not seize our attention, and we will not imitate them.
2. **Retention:** The behavior may be noticed, but it is not always remembered, which obviously prevents imitation and later repetition by the observer.

3. **Reproduction:** This is the ability to perform the behavior that the model has just demonstrated. We observe other people's behaviors daily, but we are limited by our cognitive and/or physical ability to imitate or repeat these behaviors; even if we wish to reproduce these behaviors, we cannot.
4. **Motivation:** The observer will consider the drive to perform the behavior and the subsequent rewards and punishments resulting from a behavior's imitation. The observer will be more likely to imitate the behavior if the perceived reward outweighs the perceived negative consequence.

The social learning approach considers thought processes and acknowledges their role in deciding whether a behavior is to be imitated. Social learning theory provides a more comprehensive explanation of human learning by recognizing the role of mediational processes. Although social learning theory can explain some quite complex behaviors, it cannot adequately account for how we develop a whole range of behaviors, including thoughts and feelings. In 1986, Bandura modified his social learning theory and renamed it "social cognitive theory" to better describe how we learn from our social experiences.

Some critics of social learning theory argue that it is limited to describing behavior solely in terms of either nature or nurture and that attempts to do this underestimate the complexity of human behavior. Social learning theory cannot explain all behaviors related to human development, mainly when there is no role model in a person's life to imitate a behavior.

Cognitive Theory

Whereas behavioral theory targets the process of developing behavior and psychoanalytic models emphasize the role of the unconscious, cognitive theory emphasizes the unfolding of conscious thought and the developing abilities to process, store, retrieve, and use information. Two major players in the realm of cognitive theory are Jean Piaget, a well-known Swiss psychologist, and Lev Vygotsky, an equally well-known Russian psychologist. Both men contributed significantly to our understanding of the nature of cognitive development.

Piaget's Theory of Cognitive Development

Jean Piaget's theory of cognitive development describes how humans gather and organize information and how this process changes developmentally (Inhelder & Piaget, 1958). He believed that children are born with a very basic mental structure on which all subsequent learning and knowledge is based. For Piaget, the focus was on how mental structures and processes evolved to help individuals make meaning out of their experiences and adapt to their changing environments. To understand this process of adaptation, he employed the constructs of *schema, assimilation, accommodation*, and *equilibration*.

For Piaget, a schema (or the plural schemata) refers to the cognitive structures by which an individual organizes their experience and environment. For example, upon encountering a dog for the first time, an infant will experience visual, auditory, and olfactory input. These data, according to Piaget, will be linked to a neural pathway. This schema will eventually be used as a mental template to represent a *dog* each time these stimuli are encountered. However, as we know, not all dogs will be like the first one experienced, and other animals (for example, a fox or wolf) may possess some of the characteristics of our *dog* but will be different. These subtle differences will force an individual to develop new schemata to reflect and organize these categories of

stimulation. The process by which this occurs includes (a) a new encounter, (b) an experience of disequilibrium, discomfort of not entirely understanding or being able to make sense of the new encounter, and then (c) the process of adaptation.

When discussing this process of adaptation, Piaget noted that our first inclination is to attempt to "force" the new experience into an existing template or schema by way of the process of assimilation. Consider the infant who begins to discern the features of a male daddy from that of a female mommy. It would not be unexpected that when encountering a new male figure, the infant responds with "daddy." However, as the infant develops and possesses increased visual clarity and memory, discerning that the new male does not possess all the distinguishing characteristics of "daddy," the infant will be forced to make an adjustment or to create a new schema, perhaps "uncle," as a way of making meaning and organizing this encounter. This condition of making a new schema is called *accommodation*. For Piaget, humans are continually adjusting knowledge to adapt to the environment through a process of equilibration, assimilating when possible and accommodating when necessary (Atherton, 2011).

Piaget's research on cognition and cognitive development concluded that a person's cognitive development unfolds through four distinct and qualitatively different stages (see Table 2.3). He believed that these stages reflected an invariant sequence of development, with all children passing through each stage in order. Further, he posited that each stage was qualitatively different from the others, such that it was not simply a matter of more knowledge or information but a different way or ability to derive and use that information. Finally, while assuming the necessity of biological readiness as a determining factor in one's progression through the stages, Piaget also acknowledged the potential for the environment to accelerate or even retard that progression.

TABLE 2.3 ■ Piaget's Stages of Cognitive Development

Stage	Approximate Age	Description
Sensorimotor stage	Birth to 18 to 24 months	Infants adapt and organize experiences by way of sensory and motor actions. Initially, simple reflexes (for example, sucking) help them know their world. Later, within this stage, infants differentiate themselves from the external world, and objects take on their existence. This is the time when object permanence occurs, with the infant able to symbolize the object and realize that objects exist even if they are out of the infant's sensory experience.
Preoperational stage	2 to 7 years	While the child at this stage lacks logical operations, the child is no longer tied to sensorimotor input but is tied to and operates via representational and conceptual frameworks. The child can employ symbols to recreate or present experiences. In this stage, the child believes that everyone sees the world the same way that the child does. This is called *egocentrism*. Conservation, another achievement of this stage, is the ability to understand that quantity does not change if the shape changes.
Concrete operational stage	7 to 11 years	In this stage, the child can employ logic, however, only to concrete problems and objects.
Formal operational stage	≥11 years	At this point, children's abstract thinking leads to reasoning with more complex symbols. They can think logically about abstract propositions and test hypotheses systematically. They become concerned with the hypothetical, the future, and ideological problems.

Although many think Piaget's cognitive theory is too narrow to explain human lifespan development, he is credited with discovering that thoughts, not just experience, contribute to human development. The advancement of medical research, particularly brain research, has allowed scientists to study how humans process information and react to various stimulations. Such research will ultimately allow researchers to understand human cognition development at every age (Atherton, 2011).

Vygotsky's Sociocultural Perspective

Like Piaget, Lev Vygotsky (1896 to 1934), a pioneer of sociocultural theory, maintained that children actively construct their knowledge. However, he disagreed with Piaget's proposal that progression through the identified cognitive stages was natural and invariant. Vygotsky emphasized the role of culture in promoting certain types of activities (Rogoff & Chavajay, 1995) and emphasized that a child masters tasks that are deemed culturally important.

Vygotsky believed that human development is the result of interactions between people and their social environment. He focused on the connections between people and the sociocultural context in which they act and interact in shared experiences and cultural artifacts such as written languages, number systems, various signs, and symbols (Burns et al., 2012). These cultural artifacts facilitate the possible adjustment of a growing child into the culture and transform the way the child's mind is formed. Initially, children develop these tools to serve solely as social functions and ways to communicate needs. These cultural tools are an achievement that expands one's mental capacities, allowing individuals to master their behavior. Children generally learn how to use these cultural tools through interactions with parents, teachers, or more experienced peers (Burns et al., 2012).

Strong intergenerational family bonding is very important throughout the lifespan of family members.

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Biopsychosocial Theory

Biopsychosocial theory was discussed in some detail in Chapter 1 and thus will not be expanded here. However, it is important to highlight that the biopsychosocial model focuses on the integration and reciprocal effect of biological, psychological, and social systems on our development. This theory helps to highlight the fact that many interacting processes, including internal and external variables and factors such as bodily processes, personality dispositions, and life events, influence mental and psychological states.

Ecological Systems Theory

Theories of development classified as ecological theories emphasize environmental factors. Urie Bronfenbrenner, a Russian American (1917 to 2005), created one ecological theory with important implications for understanding lifespan development. Bronfenbrenner's ecological systems theory posits that a child's development occurs within a complex system of relationships, including parent-child interactions (the microsystem), the extended family, school, and neighborhood (the mesosystem), and the general society and culture (the exosystem). All in all, the

An environment that is accommodating creates a better society where everyone can function independently.

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theory posited five environmental systems that are significant for understanding human development: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Table 2.4 describes these systems, and Figure 2.1 highlights their dynamic interactive nature.

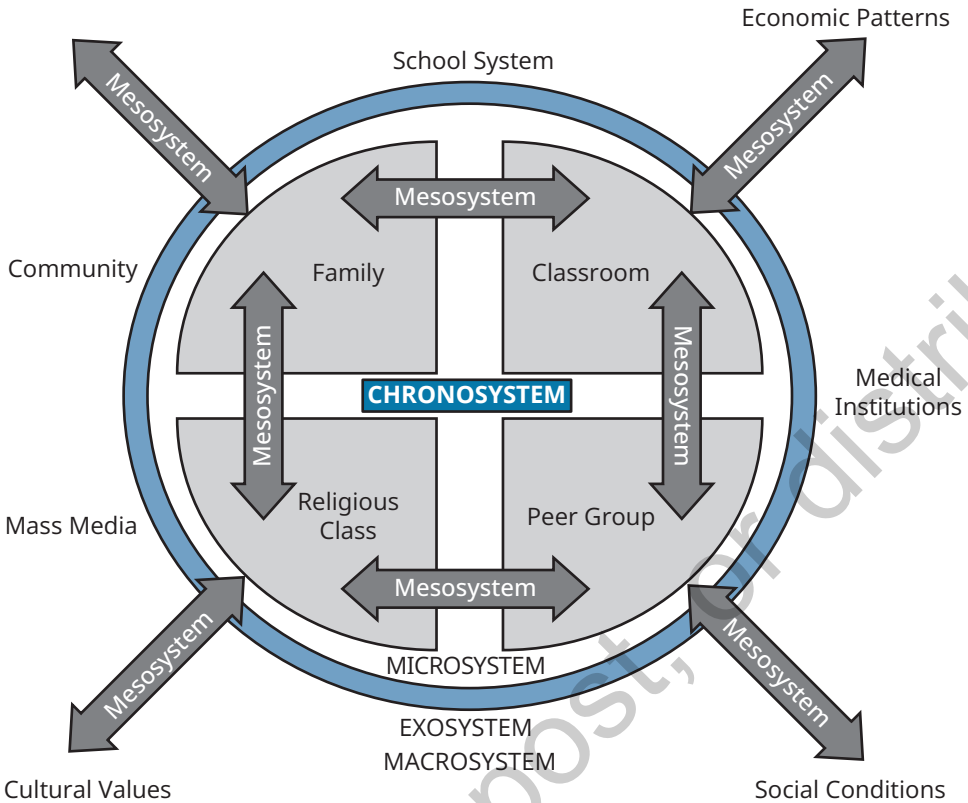
TABLE 2.4 ■ Bronfenbrenner's Ecological Systems Theory

System	Description
Microsystem	The *microsystem* refers to the individual's immediate surroundings and consists of interactions in their immediate surroundings. It is the setting in which a person lives; family, peer groups, neighborhood, and school life are all included in the microsystem. The most direct interactions with social agents take place in the microsystem, with parents, peers, and teachers, for example. The individual is not merely a passive recipient of experiences in these settings but someone who helps to construct them.
Mesosystem	The *mesosystem* connects with the structure of the microsystem. The relationship between school life, the neighborhood, and the family can be seen. The child's environment links the child with their immediate surroundings. Some common examples are the connections between family experiences and school experiences, school experiences and church experiences, and family experiences and peer experiences. A result of mesosystem interactions could be that children whose parents have rejected them may have difficulty developing positive relationships with their friends or peers.
Exosystem	The *exosystem* is the outer shell surrounding both the mesosystem and the microsystem. The inner level of the exosystem is affected by the support of the macrosystem. Bronfenbrenner describes the exosystem as being made up of social settings that do not contain the developing person but affect experiences in their immediate settings (Berk, 2007). The exosystem includes other people and places that the child may not interact with often but still significantly affect the child, such as parents' workplaces, extended family members, neighborhoods, and so on. For example, a wife or child's experience at home may be influenced by the husband's experiences at work. The father might receive a promotion that requires more travel, which might increase conflict with the wife and affect patterns of interaction with the child.
Macrosystem	The *macrosystem* influences the individual directly, but the individual has less influence in determining settings. The macrosystem includes aspects of culture and the relative freedoms permitted by the national government, cultural values, the economy, wars, and so on. It also describes the culture in which individuals live, including socioeconomic status, poverty, and ethnicity.
Chronosystem	The *chronosystem* refers to patterning environmental events and transitions over an individual's life and sociohistorical circumstances. For example, divorce is an individual transition. Researchers have found that the adverse effects of divorce on children often peak in the first year after the divorce. Family interaction is less chaotic and more stable 2 years after the divorce. An example of sociohistorical circumstances would be the increasing opportunities in recent decades for women to pursue careers.

As you review Table 2.4, consider how specific forms of each system can interfere with one's optimal development. Consider, for example, the impact of living in poverty, with an abusive family, or in a war-torn culture or society on development. As you reflect on each of these systems, consider the implications for a counselor's intervention and prevention services.

The ecological systems theory developed by Bronfenbrenner has influenced the thinking of developmental psychologists and other psychologists worldwide. This theory has significantly

FIGURE 2.1 ■ Bronfenbrenner's Ecological Systems Theory of Dynamic Interactive Nature



impacted the field of child and youth care. The umbrella, cube, and ecological onion models, which professionals in children and youth care use widely to organize ideas and information and to facilitate planning, are based on Bronfenbrenner's theory (Rosa & Tudge, 2013). Guided Practice Exercise 2.1 ("A Collision of Cultures") allows you to view a case through the lens of Bronfenbrenner's ecological systems theory.

GUIDED PRACTICE EXERCISE 2.1 A COLLISION OF CULTURES

Ben is an American Chinese boy growing up in a very traditional American society with very traditional Chinese parents. Ben's parents communicate with each other in Chinese (Mandarin) at home. Ben's parents are highly educated individuals, and because Ben is their first child, he has been spoiled since he was a toddler. Due to their work responsibilities, Ben's parents live separately; getting together requires a 2-hour drive, and Ben's mother is his primary caretaker. His parents have been trying to get together every weekend so each parent can see Ben. Ben has been attending school, and most of his classmates are either White Americans or Black Americans. Since Ben can see his father only on weekends and his

father instructed him to take care of his mother when he is not around, Ben has developed a very authoritarian attitude toward his mother. When Ben was 8, his mother gave birth to his sister, and Ben's behavior became more overbearing toward his mother and sister.

Recently, the school informed Ben's mother that Ben has been "acting up" in school, and his teachers frequently discipline him. Ben's parents are extremely concerned about Ben's mental health and biopsychosocial development, which can contribute to his growth and development as a dynamic, interactional, and dualistic individual.

Reflection and Discussion Points

Please reflect on the vignette and discuss the following with your instructor and colleagues.

1. Can you identify any unique pressures or forces coming from Ben's microsystem, mesosystem, or exosystem?
2. What do you predict will impact Ben's identity?
3. What are your feelings about Ben and his parents' relationship moving forward?
4. How might a counselor intervene?
5. What types of intervention strategies would be appropriate to work with Ben and his parents to help them become a stronger and united family to "deal" with Ben's issues?

CULTURAL DIVERSITY AND HUMAN DEVELOPMENT

From the cultural diversity perspective, the contributions of Bronfenbrenner and Vygotsky are significant to the study of human development because their theories focus on its socioecological and sociocultural contexts. Bronfenbrenner's theory focuses on the mutual accommodation and interaction between the developing individual and the physical environment; this ecological approach defines the development of the individual who interacts with the environment in the process of mutual accommodation. Using a similar theoretical approach, Vygotsky developed the theory of cognitive development to emphasize that human development is inseparable from social and cultural activities. His theory complements Bronfenbrenner's ecological systems theory of human development. According to Vygotsky, by interacting with the environment, society, and people with higher skill levels, children develop higher mental processes and learn to use the tools of culture, such as language, mathematics, interpersonal skills, and so on. This interaction process is important because it allows children to become acculturated in the use of their intellectual tools. Most importantly, by interacting with a variety of cultural, ecological, and social contexts, children can understand and learn self-regulation. Guided Practice Exercise 2.2 will further demonstrate Vygotsky's concept of various interactions and their impacts on the child.

GUIDED PRACTICE EXERCISE 2.2 CONTRIBUTIONS TO CULTURAL DIVERSITY

As you read about Kate, process the information through your understanding of Vygotsky and Bronfenbrenner's theories. Your task is to identify the unique contributions and influences, both positive and negative, on Kate's development as she grows up in a culturally diverse family.

Kate grew up in a culturally diverse family on the East Coast. Her father, Paul, came from a traditional Greek family and migrated to the United States after high school. Paul married Linda, Kate's mother, who is of Hispanic descent. Kate's family has resided in a

middle-upper-class neighborhood since Kate's birth. When Kate started her senior year in high school, she developed an isolative behavior toward her family and her school peers. Kate also exhibited resentment and anger about her racial identity. Kate has expressed her frustration about comments from her friends and classmates about her multicultural background, the imperfection of her father's English language, her multiracial appearance, and her family's celebration of her parents' special occasions that differ significantly from those of her neighbors. In coping with her unhappiness and frustration, Kate's skill is to pretend to be tough, not just toward her friends and classmates but also her family members. These behaviors have contributed negatively to her school performance and social relationships. She is in the transition from high school to college. Without appropriate therapeutic intervention, Kate's behavior can be detrimental to her growth and development, especially her educational attainment and career objectives.

Reflection and Discussion Points

Please reflect on the vignette and discuss the following with your instructor and colleagues.

1. What therapeutic intervention(s) would be appropriate to work with Kate to help her "cope" with her unhappiness and frustration?
2. Why?

SEEKING THE TRUTH: RESEARCH METHODOLOGIES

According to Miller (2011), a **developmental theory** is a systematic statement of general principles that provides a coherent framework for understanding how and why people change over time concerning their behaviors, attitudes, thoughts, philosophies, and physical and psychological capabilities. Theories in development are scientific theories and, as such, represent the *systematic* statement and integrated assumptions and hypotheses drawn from the observations and research conducted by developmental theorists. Scientific theories and theories of development propose explanations of phenomena that are tested for confirmation or falsification using scientific methodology. Through research, theories are modified to reflect and explain new data. However, when the subject is human development, applying the scientific method is not always easy; therefore, multiple research methods are employed. The difficulty in answering valuable questions regarding the impact and influence of various factors on normative development can be seen in Guided Practice Exercise 2.3. We suggest that you return to this scenario after reading about the various research methods employed in studying human development. Consider the various methods that would be most useful and applicable to studying this situation.

GUIDED PRACTICE EXERCISE 2.3 ELEMENTS IMPACTING DEVELOPMENT

Developmental theories have alerted us to the significant influence of social and environmental forces on development. Read the following case of Monique and consider the various multidimensional elements impacting not only Monique's development but also that of her brother. As you read through the various methodologies used to research development, consider which method(s) may reveal the most accurate understanding of this situation.

Monique grew up with her brother, who has an intellectual disability. Research studies have indicated that siblings are integral to most children's social world during their developmental years. Furthermore, the emotional ties between siblings are next only to those between parents and children.

Reflection and Discussion Points

Please reflect on the vignette and discuss the following with your instructor and colleagues.

1. How might having a brother with an intellectual disability affect Monique's human growth and development?
2. Would her sense of identity be negatively influenced by the presence of a brother with a disability?
3. Would her self-esteem be affected by having a brother with a disability?
4. Would she be well adjusted in her sibling role and accept her brother with a disability as an inseparable part of their lives?
5. Would her peer relationships be altered by the presence of her brother, such as signs of latent shame associated with having a sibling with a disability?
6. What kind of data do we need to collect to find out the impact of having a brother with an intellectual disability during the developmental years?
7. Further, what other factors may have contributed to Monique's coping mechanisms when she was growing up?
8. How important are the extended family support system, parents as the primary caregivers, Monique's awareness of her brother's limitations, and her brother's independent mobility?
9. What types of intervention(s) would be appropriate to work with Monique to help her become a "happier" person and have healthier growth and development?

Research Observation

The scientific observation approach in human development research requires the researcher to record human behavior objectively, methodically, and systematically. In employing scientific observations, researchers need to know what they are looking for, what they are observing, when and where they will be observing it, and how the observation will be made. This research approach can be applied to both **qualitative** and **quantitative research methods**. When a researcher wants to see and attempt to get a comprehensive picture of a specific situation by gathering notes and verbatim or narrative data, this research is considered qualitative. When the researcher uses independent measures such as scales and objective observational recording instruments, the data collected are quantitative (Berger, 2011).

There are two possible settings for making scientific observations: (a) a laboratory, which is a controlled setting in which the researcher can manipulate the environment (removing the real-world experience) to optimize the research result, and (b) a real-world setting.

Although conducting behavioral observations in a laboratory setting will provide researchers the ability to control certain factors that may influence behaviors not related to the study, this approach has drawbacks. First, because a laboratory is an artificial setting compared to typical human engagement, participants in the laboratory research study may perform differently (most work harder and perform better) since they are aware that they are being observed. This phenomenon is called the **Hawthorne effect**. Second, volunteers who are willing to come to the laboratory to participate may not represent the population the researchers intend to study. Last, due to its complex nature and the number of variables involved, the study of human development is difficult, if not impossible, to examine in the laboratory.

Human development and lifespan studies often lend themselves to investigation within real-world settings. These naturalistic observations can be conducted in childcare centers,

classrooms, work settings, shopping malls, sporting arenas, and so on. In conducting observations in natural settings, the researchers can observe people's actual behaviors and interactions with one another. As with any other research method and data collection type, the primary concern regarding direct scientific observation is its validity and reliability. A well-defined behavior to be measured and a well-trained observer to make the observations will enhance the validity of the data to be collected. A well-trained observer must be aware of their own bias, worldview, beliefs, and perceptions, which may influence how they observe and interpret the situation. The observer effect, in which people being observed behave differently because they are being observed, may also compromise the research.

Survey Interviews

Direct responses from those within the study often best explain the research question being investigated. For example, asking them directly may be the most effective strategy for gaining understanding and learning more about peoples' attitudes or beliefs about an issue.

Direct interviews or the application of a survey or questionnaire can be very effective in gathering this type of self-reported information, especially when seeking it from large groups of people. In a good survey, the questions are clear and unbiased, allowing respondents to answer unambiguously. As is true for all research methodologies, survey research has both strengths and weaknesses as a vehicle for gathering insight and understanding (see Table 2.5).

TABLE 2.5 ■ Strengths and Weaknesses of Survey Research

Strengths	Weaknesses
1. Surveys are relatively inexpensive.	1. A methodology relying on standardization forces the researcher to develop questions general enough to be minimally appropriate for all respondents, possibly compromising what is most appropriate to many respondents.
2. Surveys are helpful in describing the characteristics of a large population.	2. The initial study design, including the method and the tool, must remain unchanged throughout the data collection, and this makes the design inflexible.
3. Surveys can be administered from remote locations using a website, mail, email, or telephone.	3. To get a good-sized sample, the researcher must ensure that many of the selected samples will respond to the survey.
4. Collecting large samples is feasible in a survey, making the results statistically significant even when analyzing multiple variables.	4. At the conclusion of the survey, participants may find it challenging to recall information or to tell the truth about a controversial question.
5. Multiple questions can be asked about a specific topic, giving considerable flexibility to the analysis.	5. Surveys are a widely used research method for gathering data from samples ranging from health concerns and political viewpoints to attitudes and opinions. Surveys tend to be weak on validity (except face validity) and strong on reliability. Also, survey answers are influenced by the wording and sequence of the questions. The respondents' selective memory may also contribute to how they answer the questions.
6. At the creation phase, there is flexibility in deciding how the questions will be administered: face-to-face interviews, by telephone, as a group-administered written or oral survey, or by electronic means.	6. The artificiality of the survey format has compromised its validity, and participants are more inclined to respond to questions they perceive to be relevant and meaningful rather than those questions they cannot comprehend. Survey data must be reliable to be useful since survey research presents all subjects with a standardized stimulus and potentially eliminates the unreliability issue in the data collection process.
7. Standardized questions make measurement more precise by enforcing uniform definitions upon the participants.	
8. The between-group study can be standardized to ensure that similar data can be collected from groups and then interpreted comparatively.	
9. High reliability is not difficult to obtain by presenting all subjects with a standardized stimulus.	
10. This medium of research significantly eliminates observer subjectivity.	

Process of Case Study

In contrast to people typically included in survey research, a case study is an in-depth look at a single individual. It focuses on collecting complete, detailed information about the individual in a situation or when exhibiting a set of behaviors. A case study is heavy in qualitative data, with extensive detailing of conditions and events and relying on anecdotal accounts of those involved (Parsons & Brown, 2002).

Typically, the process of a case study starts with a broad view of data collection. Researchers gather as much data as possible to describe the case while formulating questions and refining data collection techniques. As the study progresses, attention may shift to gathering the information that explains the present situation and the factors contributing to what is observed. Data are collected using a wide variety of methods, such as observation, questionnaires, interviews, and so on. While the strength of a case study is that it can provide a rich, in-depth look at a single individual, a limitation is that the data collected are not easily generalizable to other individuals.

Research Design: The Experiment

According to Campbell and Stanley (1963), "By experiment, we refer to that portion of research in which variables are manipulated, and their effects upon other variables observed" (p. 1.). Thus, the experiment would be one in which the researcher manipulates one or more independent variables, controls any other relevant extraneous variables, and observes the effect of the manipulations on the dependent variable(s).

The independent variable is the variable being manipulated by the researcher, and the dependent variable is the change in behavior measured by the researcher. The independent variable, from which the variable is predicted, is the presumed cause. The dependent variable, the variable predicted to, is the presumed effect. All other variables that might affect the results and, therefore, produce a false set of results are called *confounding variables* (also called *random variables*), and these must be eliminated, in some way, from influencing the outcome.

Since an experiment is a study of cause and effect, it differs from nonexperimental methods in that it involves deliberately manipulating one variable while trying to keep all other variables constant. When applied to the study of human development, pure experimentation is complex at best and impossible for specific research questions. Humans do not generally lend themselves to isolation, laboratory conditions, and manipulation of factors. For example, suppose a researcher is interested in understanding how best to affect children's reading abilities. In that case, they may gather two groups of children matched on variables that could affect reading abilities but are not the variables under study (for example, intelligence, current reading level, visual acuity, motivation, etc.). Once these variables have been accounted for (i.e., controlled), the method of teaching, which is the focus of the study (i.e., independent variable), will be introduced to one of the groups. The dependent measure might be a reading score or a measure of grade-level performance. The hypothesis under investigation would be that the group receiving the test variable (the reading program) would do significantly better than those who did not.

In our example, we noted several other—not tested—factors that could account for differences in the two groups. However, this list is not exhaustive. You probably could identify other factors that could influence performance on the group reading test. This is an overly simplified view of an experimental approach to studying a developmental issue, but hopefully, it serves to demonstrate the difficulty one has in researching developmental factors. Table 2.6 highlights the strengths and weaknesses of laboratory experimentation when applied to the study of human development.

TABLE 2.6 ■ Strengths and Weaknesses of Laboratory Research

Strengths	Weaknesses
1. Experiments are the only means by which cause and effect can be established, and true experimental design can deliberately and systematically introduce changes and then observe their consequences.	1. The experiment is not typical of real-life situations, and the unnatural environment may generate the distortion of behaviors because the experimental setting is not ecologically valid (not a real-life setting). The range of behavior to be observed in the laboratory is relatively narrow. By controlling the situation so precisely, the observation and measurement of the behavior may be very limited.
2. Experiments allow the researcher to control the variables; the purpose of control is to enable the researcher to isolate the one key independent variable to observe its effect on the dependent variable. Controlling the variables allows the researcher to conclude that it is the independent variable and nothing else influencing the dependent variable.	2. A psychological experiment is a social situation in which neither the subjects nor the experimenters are passive; they are active, thinking human beings. The Hawthorne effect has demonstrated that regardless of the experimental manipulation employed, the workers' production seems to be improved, and the logical conclusion is that the workers are pleased to receive attention from the researchers who expressed an interest in them. Thus, the results do not necessarily reflect how the workers would behave in the same situation if experimenters were not present.
3. Experiments can be replicated. The experimental method consists of standardized procedures and measures, which allow it to be easily repeated.	3. Often, the experimental method, as it operates in psychology, has a history of using biased or unrepresentative sampling. For instance, the participants in this type of research are often psychology students who are required to partake in research as a course requirement.
4. The data generated by experimental research are normally quantitative and can be analyzed using inferential statistical tests. The results of the tested data permit statements to be made about how likely the results are to have occurred through chance.	4. The strength of the experimental method is the amount of control that the researcher has over variables. However, it is not possible to completely control all the variables. There may be other variables at work of which the experimenter is unaware, and it is extremely difficult to control the mental world of the research participants.
	5. Ethical practice (conduct) in experimental research is a major concern since experiments nearly always involve deceiving participants to some extent. The subject implies that the participant is treated as something less than a person. Researchers need to understand that many areas of human life cannot be studied using the experimental method because it would be unethical to conduct this type of research.
	6. Some behavioral researchers consider normative data to have very limited usage because such data tend to describe, rather than explain, phenomena. Also, grouping people together, many argue, limits researchers' ability to look at individuals' specificities.

The Field Experiment

Sometimes, an experiment can be conducted in a more natural setting—that is, in the field. For example, the television series entitled *What Would You Do?* has been a part of the Primetime series, an American news magazine broadcast on ABC, since 2008 (ABC, 2013). The show stages events that people do not experience or expect in everyday life, and these events, as staged, are usually injustices or illegal activities. The producers set up hidden cameras to view the reactions of ordinary people when they encounter these staged injustices or illegal acts as performed by actors. They want to see whether the individuals are compelled to act or mind their own business. In these field experiments, the series looks at how ordinary people react to everyday dilemmas that test their character and values. One of the scenarios involved three teenagers (actors) who beat and taunted a homeless man in front of a passerby on the sidewalk. As with the laboratory experiment, the researcher still deliberately manipulated the independent variable of this type of field experiment. Regardless, it still has the advantage of being less artificial than the laboratory experiment.

Natural Experiments

In a natural experiment, behavioral scientists and psychologists can use a natural situation to conduct a research study that they cannot themselves manipulate. For example, a psychologist may use a one-way mirror or a hidden camera or observe from a distance to study aggressive behavior among children. In conducting this type of experiment, the researcher must not allow the children to notice them. This is not a true experiment because the psychologist is unable to manipulate or control variables. For this reason, a natural experiment is sometimes referred to as a *quasi-experiment* (Kazdin, 1980).

Lifespan Study

Researchers in lifespan development often have a special concern with studies that focus on the relation of age to some other variable. Methods that are sometimes employed to study the effect of age involve identifying groups of varying ages and comparing them on some dimension (i.e., cross-sectional research) or, at other times, following the same individuals across their lifespan and noting changes in the dimensions under investigation (i.e., longitudinal study).

Cross-Sectional Research

A cross-sectional study is a descriptive study in which the characteristics under investigation are measured simultaneously in different age populations. Cross-sectional studies can be thought of as providing a snapshot of contrasting populations at a time. While the data collected may reveal differences, the actual cause for those differences cannot be isolated nor validly attributed to age alone.

Longitudinal Research

A longitudinal study, like a cross-sectional one, is observational. So, once again, researchers do not interfere with their subjects. However, in a longitudinal study, researchers conduct several observations of the same subjects over some time, sometimes lasting many years. The benefit of a longitudinal study is that researchers can detect developments or changes in the target population's characteristics at both the group and individual levels. The key here is that longitudinal studies extend beyond a single moment in time. As a result, they can establish sequences of events.

RULES GOVERNING HUMAN SUBJECTS RESEARCH

World Opinion

Rules governing research on human subjects have been embedded in the parameters of our professional ethics and within the rules and regulations established by governments. For example, as a result of the atrocities revealed during the Nuremberg trial following World War II, the Nuremberg Code was established in 1947. This code articulated the basic requirements for researching in a way that respects the fundamental rights of research subjects. The World Medical Association met in Helsinki, Finland, in 1964 to draft the Declaration of Helsinki, a document that built on the Nuremberg Code to outline the standards of ethical research involving human subjects. This declaration was revised in 2000.

Additional rules of study were developed in 1962 after the tragedy with thalidomide. Prior to 1962, researchers were not required to obtain informed consent from participants before

prescribing investigational drugs. After significant numbers of pregnant women who had received thalidomide gave birth to infants with deformities, public outrage over this practice led to an amendment to the Federal Food, Drug, and Cosmetic Act that required investigators and researchers to obtain informed consent from potential subjects before giving them investigational medications.

Other events have also had a significant effect on how we regulate research conduct today. Examples include (a) the Wichita Jury Study (1955), (b) the creation of the NIH Ethics Committee (1964), (c) the publication of "Ethics and Clinical Research" in the *New England Journal of Medicine* (1966), (d) the U.S. congressional hearings on the quality of health care and human experimentation (1973), (e) the Milgram studies of obedience to authority (1960s), (f) the San Antonio contraception study (1970s), (g) the Tearoom Trade study (1970s), and (h) the Tuskegee syphilis study (1932 to 1972).

The National Research Act of 1974 also established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. This commission aimed to clarify the ethical guidelines to apply to research involving human subjects in all research disciplines. The commission conducted a series of meetings at the Belmont Conference Center near Baltimore, Maryland. It generated a report to address and explain the fundamental ethical principles that should guide research conduct involving human subjects. This became known as the Belmont Report and was published in 1978. The three major ethical principles of the Belmont Report are as follows:

- **Principle 1: Respect for persons.** Treat individuals as autonomous agents and protect persons with diminished autonomy.
- **Principle 2: Beneficence.** Do unto others as you would have them do unto you.
- **Principle 3: Justice.** Distribute the risks and potential benefits of research equally among those who may benefit from the research.

ACA Guidelines for Ethical Research

According to the American Counseling Association (2014), "Counselors who conduct research are encouraged to contribute to the knowledge base of the profession and promote a clearer understanding of the conditions that lead to a healthy and just society. Counselors support the efforts of researchers by participating fully and willingly whenever possible. Counselors minimize bias and respect diversity in designing and implementing research programs" (p. 16).

The ACA Code of Ethics addresses many areas related to conducting counseling research and provides the following guidelines:

1. Researchers have responsibilities when using human research participants. They should seek consultation if the research suggests a deviation from standard practices, consult the institutional review board (IRB) procedures, and use precautions to avoid injury to participants. Also, the principal researcher should be mindful of ethical obligations and responsibilities and have minimal interference in the lives of research participants. Finally, researchers should consider multicultural and diversity issues.
2. Rights of research participants include informed consent—counselors may not conduct research that involves deception. There are policies on student/supervisee participation, client participation, the confidentiality of information, persons not capable of giving

informed consent, commitments to participants, explanations after data collection, informing sponsors, and disposal of research documents and records.

3. Nonprofessional relationships with research participants should be avoided. Researchers do not condone or subject research participants to sexual harassment or potentially beneficial interactions.

4. Researchers must report accurate results and are obligated to report unfavorable results and errors while protecting the identity of participants and allowing replications of the study.

5. The publication includes recognizing the contributions of others. Counselors may not plagiarize; they must review republished data or ideas, acknowledge contributors appropriately, and establish agreements in advance of the publication. Students are listed as principal authors if they are the primary contributors, and submissions should not be duplicated.

RESEARCH CONTRIBUTING TO A COUNSELOR'S IDENTITY

Research is not only a data source for ethical and effective practice, but is it also a process to which all professional counselors should seek to contribute. Engaging with the research either as a knowledgeable consumer or contributor is essential to effective practice and the development of one's professional identity.

The field of counseling has been constantly evolving and progressing due to the increasing demands for competent, well-trained professional counselors to work with many emerging modern society issues (substance abuse, family in crisis, post-traumatic stress disorder, etc.) and individuals from diverse cultural and ethnic backgrounds. This also applies to the importance of studying human development through the lifespan, because one cannot deny the contribution of life experience to the well-being and quality of life of everyone in society. Counselors need to keep up with the current research being conducted. The more research studies that counselors read to improve understanding and apply to their work, the more they can optimize their abilities to improve counseling services for their clients. New studies can help counselors understand what is important for them to focus on in their work. Research can also teach them what is expected of a professional counselor at work. However, over the last 2 decades, the enthusiasm for research has declined.

According to Reisetter et al. (2004), there is a need to inspire interest in research among counselor education students in training and practice. Although there has been a lot of research on the development of humans, there is much more to learn. Students in the counseling field and practicing counselors need to read, understand, and participate in more counseling research activities.

According to Nelson and Southern (2008), there are four areas counselors should consider when determining how scholarly they are on the job and how they can apply this knowledge to optimize their job performance. Nelson and Southern believe that the most important area is *discovery*, which is what and where a counselor researches and investigates. The second important area is *integration*, which occurs when a scholar takes isolated concepts and places them in a larger context that gives new meaning to an emerging perspective. The third area is *application*, which involves service-related activities geared toward applying knowledge/scholarship to solving individual and community problems. The last, and perhaps least valued, area

is *teaching* with educators in the academic profession. Nelson and Southern (2008) believe that counselors need to acquire a passion for advancing knowledge in ways that satisfy the needs for personal growth and innovation in society. We support the notion of the counselor as a researcher-practitioner.

SUMMARY

- Many theories have explained that human development consists of physical, cognitive, and social perspectives and how these are present throughout prenatal, childhood, and adult development.
- Human development is multidimensional, multidirectional, plastic, multidisciplinary, and contextual, and the domains that characterize human development are physical, cognitive, and social.
- There are 10 major theoretical perspectives on human development: maturationist theory, psychoanalytic theory, Erikson's psychosocial theory, behaviorism theory, Bandura's social learning theory, cognitive development theory, biopsychosocial theory, and ecological systems theory.
- Studying cultural factors' implications is indispensable to studying human development.
- The scientific inquiry process is a rigorous and systematic journey to develop new theories and reaffirm existing ones.
- Research design requires an in-depth understanding of various methods of collecting data, including different approaches to experimental and nonexperimental designs, cross-sectional research, and longitudinal research.
- The ACA Code of Ethics contains clear guidelines that provide members with knowledge on how to conduct ethical research.

KEY TERMS

developmental theory
Hawthorne effect
Jean Piaget's
Sigmund Freud

ADDITIONAL RESOURCES

Recommended Supplemental Readings

American Psychological Association. (2005). *Policy statement on evidence-based practice in psychology.* https://www.apa.org/practice/guidelines/evidence-based-statement

American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7th ed.).

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