

Introduction to Emerging Disabilities

CHAPTER OBJECTIVES

- *Define emerging disabilities*
- *Examine contemporary societal, global, environmental, and legislative trends that have contributed to the emergence of new causes and types of disabilities as well as the reemergence of disabilities and chronic illnesses in specific populations*
- *Explore medical, psychosocial, and vocational implications of emerging disabilities that distinguish them from traditional disabilities*
- *Examine demographic characteristics of individuals who are most vulnerable to acquiring emerging disabilities*

The spectrum of causes, types, patterns, and outcomes of disability is constantly in flux. Because of the changing demographics of disability populations, stakeholders in rehabilitation counseling are continuously challenged to revise their answers to the question “*How is disability defined?*” In 2014, an estimated 12.6% of Americans had a disability (Krause, 2015), and the number is increasing every year. Disability is gradually becoming viewed as a natural part of the human condition rather than as pathology, a deficit, or an abnormality. Despite these positive developments in the conceptualization of disability, a universal definition of disability does not exist, and disabling conditions that are on the rise in the 21st century are often excluded from definitions and positive conceptualizations of disability. These conditions often have unknown etiologies, are medically debated, are less clearly defined by law and public policy, have higher rates of incidence in already marginalized populations, and/or are underestimated in terms of the severity of their symptoms and the substantial impact of these symptoms on individuals’ ability to actively participate in meaningful life activities (Fox & Kim, 2004; Koch, Conyers, & Rumrill, 2012; Nary, White, Budde, & Vo, 2004).

Not only are these emerging disabling conditions increasing in number, but individuals with disabilities and chronic illnesses that defy traditional definitions of disability represent a vastly underserved rehabilitation population who are often in dire need of rehabilitation counseling services. Individuals with emerging

disabilities stand to benefit from the same rehabilitation services as those with traditional disabilities (i.e., those that are medically recognized and well understood by rehabilitation, medical, and health care professionals; Fox & Kim, 2004; Koch et al., 2012). However, they often experience a multitude of added barriers to accessing and benefiting from rehabilitation services.

The meaning of disability is mutable and relative to context (Ribet, 2011), and to stay abreast of the constantly changing constellation of disabling conditions, rehabilitation counselors must engage in a process of lifelong learning. If future and current rehabilitation counselors are to successfully partner with consumers with emerging disabilities to address the multitude of barriers these individuals often encounter in living their lives as they choose, they must also be cognizant of external factors associated with the onset, diagnosis, treatment, experience, and consequence of these conditions (Fox & Kim, 2004; Koch et al., 2012). This increased understanding of both emergent developments in causes and types of disabilities and the constantly changing external forces that inhibit or promote participation in rehabilitation programming will enable rehabilitation counselors to then make necessary changes to policies and practices that currently exclude people with emerging disabilities from receiving services and/or that fail to effectively respond to their unique rehabilitation needs.

DEFINING EMERGING DISABILITIES

Emerging disabilities result from diseases or health conditions that are either (a) recently recognized and increasing in prevalence in a population (e.g., chronic Lyme disease, multiple chemical sensitivity [MCS], fibromyalgia, polytrauma) *or* (b) established conditions that are increasing in prevalence in a population or in specific segments of a population (e.g., asthma, autism, type 2 diabetes; Fujiura, 2001). Nary et al. (2004) observed that people with emerging disabilities exhibit less apparent physical disability, even though their conditions can be severe and negatively impact multiple functional domains. They also observed that emerging disabilities are frequently less clearly defined by law and public policy.

Ribet (2011, p. 161) expanded on this definition, defining emergent disability as “a pattern of burgeoning mental and physical conditions which correlates, often strongly, with poverty and various forms of social and political insubordination.” In Ribet’s definition, emergent disabilities are linked to social inequities based on demographic characteristics of individuals such as race, ethnicity, gender, sexual orientation, gender identity, age, and socioeconomic status as well as the simultaneous interaction of these characteristics. In this definition, emerging disabilities would not be present or as severe if they did not occur in a context of systemic inequities and social injustices resulting from violence, inequitable access to health care, poor nutrition, inadequate housing, employment discrimination, labor exploitation, exposure to environmental hazards, institutionalization, and incarceration. Fox and Kim (2004) also distinguished emerging disabilities from traditional disabilities in terms of social and environmental factors that contribute to their onset, presentation, severity, and consequences. They noted that, in comparison to people with traditional disabilities, people

with emerging disabilities face far greater barriers to full inclusion in society; therefore, consideration of social and environmental determinants of disability such as systemic inequities and social injustices is more important than ever before.

In understanding emerging disability populations, it is also important for readers to be familiar with the term *medically unexplained symptoms*. Because many individuals with emerging disabilities experience symptoms with no detectable pathological basis, they must often consult multiple medical specialists who are perplexed by their symptoms and unable to provide them with a definitive medical diagnosis (Koch et al., 2012). In such cases, physicians may conclude that these individuals have medically unexplained symptoms. Medically unexplained symptoms are those “for which conventional biomedical explanation could not be found on routine examination or investigations” (Nimnuan, Hotopf, & Wessely, 2001, p. 366). In a study conducted by Nimnuan et al. (2001) at two general hospitals in southeast London, the researchers found that medically unexplained symptoms were seen across medical specializations and represented the most frequent diagnosis in some of these specializations. More recently, researchers have found that between one third and two thirds of patients seen in general medical clinics do not receive a medical explanation or diagnosis from their treating physicians for their symptoms (Edwards, Stern, Clarke, Ivbijaro, & Kansey, 2010). The most commonly reported medically unexplained symptoms with unknown pathologies are fatigue, pain, heart palpitations, dizziness, and nausea. In some cases, symptoms may be mild and transient, whereas in other cases they are severe, ongoing, and debilitating.

Medically unexplained symptoms challenge the conventional biomedical model of disease that fails to acknowledge the complexity of biopsychosocial factors in the onset and presentation of unexplained symptoms. The biopsychosocial model recognizes that “illness is not an entity independent of social, psychological, and behavioral influences” (Day, Thorn, & Burns, 2012, p. 115). This reconceptualization of illness has led some researchers in the medical sciences to question whether the problem of medically unexplained symptoms is a limitation inherent in traditional medicine, which fails to incorporate a biopsychosocial approach into diagnostics and treatment. It has even been suggested that physicians’ inability to diagnose symptoms leads to blaming patients and invalidating their illness experiences rather than examining shortcomings inherent in the biomedical approach to health care (Raymond & Brown, 2000; Van Houdenhove & Luyten, 2004). As McClellan (2012, p. 649) noted:

Just because scientists don’t understand the cause of a disease doesn’t mean that it doesn’t exist. Back when patient-reported symptoms were all doctors had to go on, MS was known as a “faker’s disease.” Then magnetic resonance imaging was invented, and doctors could suddenly see detailed high resolution images of the brain lesions that explained the symptoms patients complained about.

Not receiving a diagnosis and explanation of the causes of one’s symptoms, which is more likely to happen if the patient is *not* treated from a biopsychosocial framework, can make the symptoms even more distressing for the individual who is experiencing them and can result in adverse psychosocial and functional

consequences (Koch et al., 2012). Furthermore, the lack of a definitive medical diagnosis can prevent individuals from qualifying for specific civil rights protections, disability entitlements, and rehabilitation services. Indeed, being told that one's symptoms are medically unexplained or psychosomatic is a far too common experience for individuals with emerging disabilities. Although these individuals experience unexplained symptoms that are not readily diagnosed, these symptoms can cause substantial disruption to their lives and result in numerous functional limitations. In research studies investigating the psychosocial impact of living with chronic illnesses and disabilities that cannot be medically explained or are medically debated, common themes include uncertainty and anxiety, feelings of hopelessness associated with unexplained and continuing declines in individuals' health and functional capabilities, frustration with medical providers' inability to provide a diagnosis, increased stress associated with having their symptoms dismissed and invalidated by physicians and others, exacerbation of symptoms when misdiagnosed and treated for disorders they do not have, and feelings of being misunderstood and socially isolated (Koch et al., 2012).

In addition to recently recognized conditions, established conditions that are growing in incidence and conditions that are difficult to diagnose, another emerging disability population consists of individuals with rare diseases or disorders. The National Organization for Rare Disorders (NORD, 2016) defines a rare disorder as one that affects fewer than 5,000 people in the United States. According to NORD, approximately 7,000 diseases in the United States are considered to be rare disorders. Individuals with these conditions are largely underserved by both health care and rehabilitation systems, in part due to their small numbers and in part due to their marginalized status (Koch et al., 2012). Rare disorders are extremely difficult to diagnose, and specialists and diagnosticians who are knowledgeable about these low-incidence conditions are often limited in number. Even after diagnoses are confirmed, individuals with rare disorders find it difficult to find qualified health care professionals to treat and help them manage their conditions. They also differ from individuals with other disabilities in that they have fewer available resources to cope with their conditions, and, because of the low incidence of rare disorders, individuals with these disorders are not a potent political group (Koch et al., 2012). Finally, because research on rare disorders has primarily focused on the etiology of these conditions and finding cures, there is very limited research on topics such as the quality of life of people dealing with particular rare conditions, their employment outcomes, and rehabilitation interventions that are beneficial to these individuals.

When considering emerging disability populations, we must also take into account the emerging causes of disability (e.g., violence, lifestyle factors, climate change). These causal factors intersect with disability, demographic characteristics of the individual, and social inequities to create unique challenges that must be addressed in rehabilitation plans if individuals with emerging disabilities are to achieve their rehabilitation goals. Unfortunately, rehabilitation interventions often fail to adequately address social and environmental determinants of disability. To remediate this problem, Fox and Kim (2004, p. 325) suggested that "understanding predisposing and sustaining risk factors of persons with emerging disabilities is necessary before system-wide...interventions can be developed."

Finally, in examining emerging disability populations throughout this textbook, we consider populations that are increasingly seeking services from rehabilitation counselors across rehabilitation settings as well as within specific settings. For example, rehabilitation counselors working in vocational settings can anticipate serving growing numbers of older Americans with disabilities as the 77 million members of the baby boom generation continue to age (Wickert, Dresden, & Rumrill, 2013). Yet, rehabilitation counselors have not traditionally provided services to many older individuals in these settings. Furthermore, it has been estimated that 50,000 youths with autism reach adulthood each year (Shattuck et al., 2012), and autism advocates have questioned whether adult service providers are prepared to address the housing, independent living, educational, and employment needs of this burgeoning population of adults with disabilities.

It has also been observed that rehabilitation counselors working across settings are serving growing numbers of individuals with serious mental illness (SMI). For example, McReynolds and Garske (2003) reported that psychiatric disability represented the second most frequently served disability population by the state–federal vocational rehabilitation (VR) program. Rosenthal, Dalton, and Gervery (2007) found that individuals with psychiatric disabilities represented 32.2% of the sample in the Rehabilitation Services Administration’s 2001 Case Service Report, making them the largest disability group served during that fiscal year. Additionally, growing numbers of individuals with SMI are attending American colleges and universities (Armstrong & Young, 2015; Byrd & McKinney, 2012). Students with these disabling conditions present unique challenges to post-secondary institutions that are not adequately prepared to provide the necessary support needed for them to achieve their educational goals.

CONTEMPORARY TRENDS LINKED TO EMERGING DISABILITIES

Life in the 21st century is marked by constant change, and contemporary rehabilitation counselors, administrators, educators, policy makers, and researchers must be prepared to proactively respond to these changes. In particular, they must be attentive to the complex rehabilitation needs of emerging disability populations. Kim and Fox (2004) specified trends in the 21st century that have been tied to the “changing pattern of disability” (p. 92) such as violence and abuse, aging, substance abuse and stress, inadequate prenatal care, low birth weight, adolescent pregnancy and child bearing, poor nutrition, environmental hazards, chronic disease, injuries, and childhood abuse or neglect. Koch et al. (2012) discussed trends associated with emerging disabilities such as advances in medical technology, the aging American population, global warming and associated climate changes, violence, poverty, and disability legislation that have led to new patterns of disability and chronic illness. Kim and Fox (2004) and Koch et al. (2012) noted that understanding the roles of sociological, demographic, economic, and other environmental factors in causing and defining newly recognized chronic illnesses and disabilities is more important than ever before. This understanding is a prerequisite to making appropriate adaptations to policies and practices that exclude people with emerging disabilities from receiving services or fail to respond to their unique rehabilitation needs. In the following paragraphs, we examine these and other social and environmental trends that have contributed to the development of emerging patterns and types

of disabilities including (a) advances in medicine and assistive technology (AT), (b) globalization, (c) climate change, (d) poverty, (e) violence and trauma, (f) the aging American populace, and (g) disability legislation.

Advances in Medicine and Assistive Technology

Medical advances have led to earlier detection and treatment of life-threatening injuries, diseases, and chronic illnesses, thus increasing the life span of individuals living with these conditions. Advances in emergency medicine have dramatically increased survival rates for individuals with severe, and even catastrophic, injuries. For example, Frain, Lee, Roland, and Tschopp (2012) noted that personnel in current U.S. military operations have acquired disabilities at a rate greater than that of any war since the 1950s, and the authors attributed this outcome to advancements in body armor, the proximity of medical care, and medical innovations that have enabled over 90% of those injured in war to survive their injuries.

Advances in biomedical imaging and laboratory technology have resulted in reduced rates of childhood mortality and increased precision in diagnosing and treating disease in a targeted manner (Falvo, 2014). Likewise, medical advances in cancer diagnostics and treatment have prolonged the lives of cancer survivors to such a degree that cancer, once viewed and treated as a terminal illness, is now considered a chronic illness. Correspondingly, ongoing advances in genome-based (i.e., an organism's complete set of DNA) research have made it possible for scientists and clinicians to gain a better understanding of how genetic factors interact with environmental factors in the onset of diseases such as cancer, diabetes, and cardiovascular disease (National Human Genome Research Institute, 2015). These advances have led to improved screening and diagnostic testing as well as the implementation of more effective, evidence-based treatment approaches tailored to the individual's unique genomic makeup. As a result of these advances, it is anticipated that more individuals will receive earlier diagnosis and treatment for chronic conditions that currently result in long-term disability.

Pharmacological advances have led to more effective treatment of disabling symptoms, fewer side effects of medications, and subsequent improvements in the functional capabilities of individuals with severe disabilities. For example, advances in psychopharmacology have resulted in the development of psychotropic medications that better treat severe and disruptive psychiatric symptoms with fewer side effects. Partially because of these psychopharmacological advances, individuals with SMI are now able to better manage debilitating symptoms that would otherwise prevent them from participating in meaningful life activities, living independently in their communities, participating in postsecondary education, realizing their self-determined recovery and employment goals, and enjoying a high quality of life (Eudaly, 2002; Hartley, 2013; Kiuahara & Huefner, 2008; Megivern, Pellerito, & Mowbray, 2003). As another example, pharmacological treatment of HIV has now resulted in increased life spans for individuals with HIV; because of these advances, the view of HIV as a terminal illness has been changed to that of a chronic illness that can be medically managed (Conyers, 2004a, 2004b).

The field of assistive technology (AT) has, likewise, seen dramatic advances over the past several decades. In fact, Field and Jette (2007) reported

that 21,000 assistive devices were available in comparison to 6,000 devices in the early 1980s. Research and development in this area continues at an unprecedented rate, and AT is becoming increasingly customized and portable. Examples of currently available technologies, as well as some that are still in development, include voice recognition software, communication devices based on tracking of individual eye movement, robotic exoskeletons that enable individuals with spinal cord injuries to walk, joy sticks to provide better control of power-assisted wheelchairs, stair climbing wheelchairs, power-assisted propulsion for manual wheelchairs to lower energy expansion and prevent secondary injuries, devices to remotely manage and operate home and office appliances, and prosthetic devices that respond to neural impulses. These advances in medicine and AT have resulted in increased life expectancies, improved functional abilities, and greater opportunities for individuals with disabilities and chronic health conditions to participate in meaningful life activities.

Globalization

Globalization, “the global scale, interconnectedness, and economic intensity of human activity” (McMichael, 2013, p. 1335), has resulted in the worldwide expansion of health risks as well as the potential for permanent disability and chronic illness to be incurred from these health risks. For example, economic, social, demographic, and environmental changes have occurred on a global scale and are linked to increases in the prevalence of obesity; the emergence of infectious diseases; increased rates of cigarette smoking, particularly for populations of people living in poverty; and ongoing and expanding health care disparities. According to Giovanni (2001) many of these health risks are rooted in the globalization of trade, travel, and exchange of information.

The global marketing of brand name beverages and fast foods has contributed to the worldwide epidemic of obesity (Pang & Guindon, 2004). Across the world, traditional foods are being replaced by foods that are high in fat and calories. Relatedly, many industrialized nations have banned the advertising of cigarettes, and tobacco companies are targeting people in poorer countries in their advertising campaigns. Internationally, the high rate of smoking in children and adolescents is a major health concern. Global marketing has also led to higher alcohol consumption, particularly in poorer countries and among younger individuals. These trends have contributed to international increases in rates of conditions such as obesity, diabetes, cardiovascular disease, and cancer. The travel industry has also been globalized, and increasing numbers of individuals are traveling internationally. Increases in global travel have resulted in the spread of communicable diseases into vulnerable, nonimmune populations through travel of infected humans. Indeed, the media has devoted substantial coverage to recent examples of diseases that have spread as a result of international travel including Ebola virus disease, the H5N1 strain of bird flu, and severe acute respiratory syndrome (SARS).

The globalization of ideas and information from sources such as the Internet, satellite television, and social media has now made medical information readily and easily accessible to everyone (Pang & Guindon, 2004). This

trend has shaped the widening constellation of disability. With readily available medical information, more and more people are self-diagnosing in the absence of medical validation. Others may self-diagnose, identify courses of treatment, and, with this information in hand, seek out consultation from specialists to confirm their self-diagnoses. Easy access to medical information has contributed to an increasing demand for changes in the roles of physicians and patients. Growing numbers of patients are no longer willing to be passive recipients of medical diagnoses and treatments from the “all-knowing” physician. Now, they are taking more active roles in determining their diagnoses and challenging their providers regarding the best approaches to treatment based on what they have learned by conducting research on the Internet. However, concerns arise regarding unreliable and inaccurate health information that is proliferated through the Internet. In addition to being misleading, this information can also be harmful.

Relatedly, the proliferation of information on the Internet from consumer self-advocacy organizations has reduced some of the stigma associated with disability and chronic illness, thus reducing internalized stigma and increasing the likelihood that individuals with stigmatized conditions will more openly disclose their diagnoses to significant others, disability service providers, and employers. For example, the dramatic increase in the numbers of college and university students who are self-identifying as individuals with psychiatric disabilities is partially attributed to the reduced stigma associated with mental illness that has occurred as a result of powerful antistigma media campaigns that have been launched by consumer advocacy organizations (Eudaly, 2002; Hartley, 2013; Kiuahara & Huefner, 2008; Megivern et al., 2003). Likewise, the proliferation of self-advocacy organizations for individuals with conditions such as chronic Lyme disease, fibromyalgia, and MCS has resulted in increased rates of self-diagnoses in the absence of diagnoses from medical professionals. Individuals with these conditions may now participate in online support groups and chat rooms where they can acquire medical advice from others who have the same condition. Again, the accuracy of information they receive is an issue of concern. This trend challenges rehabilitation and disability agencies and programs for which eligibility criteria are premised on diagnoses from qualified medical professionals. The question arises as to how to respond to growing numbers of individuals who are anticipated to apply for services on the basis of a self-diagnosis. A related concern is how to respond to individuals who do not agree with medical diagnoses and who present with a self-diagnosis that differs from that provided by a medical specialist.

Climate Change

As a result of climate change, we are experiencing dramatic increases in the number and severity of extreme weather events and natural disasters. Although climate change is still debated in the media, research evidence supports that global warming has led to changes in the intensity, duration, and geographical extent of weather events such as heat waves, wildfires, flooding, thunderstorms, ice storms, blizzards, hurricanes, high winds, and tornadoes (Interagency Working Group on Climate Change and Human Health, 2010). These events can exacerbate

preexisting chronic health conditions and increase the onset of chronic illnesses such as asthma, respiratory and airway diseases, cancer, and mental health conditions in otherwise healthy individuals. Although most survivors are able to adapt to the consequences of natural disasters resulting from climate change, these can leave others with permanent physical injuries, chronic illnesses, and stress-related mental disorders. Physical injuries (e.g., traumatic brain injuries, fractures, burns, amputations) acquired during these events may result in permanent disability. Many survivors of these events have experienced substantial losses (e.g., destroyed homes; death of family, friends, and pets; destruction of community infrastructure). Reactions to these losses can range from mild stress responses to chronic stress and mental health disorders (Hess, Malilay, & Parkinson, 2008). Individuals who lack the resources to rebuild their lives are especially vulnerable to the negative health consequences of extreme weather events.

Warmer air and ocean temperatures, increased rainfall, and more frequent droughts result in the accumulation of greenhouse gases such as carbon dioxide and methane in the atmosphere (U.S. Environmental Protection Agency [EPA], 2014). The degraded air quality that has resulted from greenhouse gas emissions can exacerbate preexisting conditions such as asthma and other respiratory diseases as well as contribute to the onset of these conditions in otherwise healthy individuals. Also of note when considering environmental causes of chronic illness and disability is the daunting myriad of chemicals to which individuals are exposed on a daily basis in their homes, work settings, and public spaces. Even though most individuals are able to tolerate low-level exposure to these chemicals, others develop severe and ongoing physical reactions that can impede their functioning in multiple domains. Consequently, rehabilitation counselors are serving growing numbers of individuals with disabilities such as asthma and MCS that are triggered by exposure to air pollution and environmental toxins and pollutants such as pesticides, disinfectants, cleaning products, perfumes, cigarette smoke, paint, exhaust fumes, and formaldehyde in home and office furnishings (Gibson, 2006; Gibson, Cheavens, & Warren, 1996; Gibson, Sledd, McEnroe, & Vos, 2011; Koch & Eaton, 2005; Koch, Vierstra, & Penix, 2006; Lamielle, 2003).

Poverty

More than 50 years have passed since President Lyndon Johnson's War on Poverty began, and 15% of Americans still live below the poverty line (Rector & Sheffield, 2014). Rehabilitation research has firmly established that disability results in poverty, with indicators that from one in three to one in five people with disabilities live in poverty. More recently, investigators are exploring the role of poverty as a predisposing factor in the onset of disability and chronic illness. Links have been found between poverty and a variety of chronic illnesses and disabilities (e.g., asthma, diabetes, HIV/AIDS, heart disease; Cha et al., 2015). Individuals living in poverty are also more likely to experience the negative health consequences of climate change and severe weather events (Balbus & Malina, 2009). Of critical concern is the dramatic increase in the rate of children with chronic illnesses, with the majority of this increase occurring in children living in poverty (Perrin, Bloom, & Gortmaker, 2007). Factors associated

with poverty that put poor individuals at risk for developing chronic illnesses and disabilities include unsafe housing, health-endangering employment, malnutrition, and poor access to health care and education. Likewise, as disparities in health, health care, and rehabilitation have been illuminated, rehabilitation counselors and researchers are being called upon to examine social justice issues in the rehabilitation process, strategies for implementing rehabilitation services to better serve those most at risk of experiencing social inequities, and ways to develop career trajectories that move individuals out of poverty and into the middle class (e.g., Alston, Harley, & Middleton, 2006; Ratts, Singh, Butler, Nassar-McMillan, & McCullough, 2016; Tarvydas, Vazquez-Ramos, & Estrada-Hernandez, 2015).

Violence and Trauma

Psychological and physical trauma from warfare, violent crime, intimate partner violence, and youth violence can result in permanent physical, cognitive, and psychiatric disabilities. In 2013, three million people, ages 12 years or older, experienced at least one violent victimization (e.g., rape or sexual assault, robbery, aggravated assault, simple assault; Truman & Langton, 2014; U.S. Department of Justice, 2014). Assaults and gun violence can result in injuries to tissue, internal organs, and bones. Assaults are one of the major causes of spinal cord injuries and traumatic brain injuries. Violence is also linked to psychiatric disabilities such as depression, anxiety, and posttraumatic stress disorder (PTSD). Not only is violence a cause of disabilities, but individuals with disabilities are at an increased risk of being victimized by violence (Hughes et al., 2012). Of major concern in the 21st century are the physical and psychological effects of long-term exposure to violence and trauma. This exposure leads to chronic activation of the stress response system and increases the likelihood of developing diseases of the cardiovascular, immune, gastrointestinal, neurohormonal, and musculoskeletal systems (D'Andrea, Sharma, Zelechowski, & Spinazzola, 2011).

As many as 100,000 veterans living in the United States have sustained injuries and permanent disabilities from fighting in U.S. wars between 2001 and 2011 (Frain et al., 2012). Many of these disabilities are acquired from blast-related injuries. As previously stated, approximately 90% of military personnel who acquire these injuries survive, a rate that far surpasses that of survival rates from previous wars. However, these service members must often contend with multiple, severe disabilities and functional limitations. Foremost among these disabilities are polytrauma, traumatic brain injuries, PTSD, and amputations. Moreover, veterans often face significant challenges and are provided with inadequate supports in adapting to civilian life, the consequences of which too often include unemployment, poverty, homelessness, and substance use disorders.

Domestic and intimate partner violence can result in permanent disability from injuries and mental health conditions. Ongoing violence can result in cumulative stress that has been linked to a variety of chronic illnesses including fibromyalgia, irritable bowel syndrome, central nervous system disorders, heart or circulatory conditions, and disorders of the endocrine and immune systems (Briere, Kaltman, & Green, 2008; Crofford, 2007; van der Kolk, 2003). Women with

preexisting disabilities may be at risk of experiencing domestic violence because of disability-related factors such as mobility and reliance on others for assistance with activities of daily living (ADLs; Nosek, Hughes, Taylor, & Taylor, 2006) and may sustain secondary conditions or complications of their primary conditions as a result of violent acts.

Peer victimization of school-aged children has received increasing attention in both research and the popular media. The lack of early prevention and intervention for those who have been victimized as children as well as bullies and bully-victims can lead to permanent disabilities and occupational difficulties in adulthood (Faith, Malcolm, & Newgent, 2008; Kumpulainen, 2008). Cyberbullying, a modern-day form of peer victimization, can lead to depression, anxiety disorders, and substance use disorders that often persist into adulthood (Paterson, 2011; Reed, Cooper, Nugent, & Russell, 2016). Children with disabilities are at increased risk of peer victimization, which can lead to secondary mental health conditions such as depression, anxiety, and substance use disorders if early intervention is not provided to cease the victimization of these children (Blake, Lund, Zhou, Kwok, & Benz, 2012; U.S. Department of Education Office for Civil Rights, 2014).

Even chronic exposure to insidious, low-level forms of aggression such as workplace incivility and gender- or racially based microaggressions can have negative effects on physical and mental health. These effects can include increased psychological distress, greater physical health complaints, and higher levels of anxiety and depression (Cortina, Magley, Williams, & Langhout, 2001; Lim, Cortina, & Magley, 2008). Workplace bullying, even when it is subtle, can contribute to stress-related illnesses (Reio & Ghosh, 2009). Additionally, the negative effects of interpersonal mistreatment in the workplace can extend to those who are not direct targets of the mistreatment. Dealing with these daily stressors can have an even more significant impact on physical and mental health than major life stressors (Cortina et al., 2001).

The Aging Populace

Older adults represent a diverse and rapidly growing segment of the U.S. population (Wickert et al., 2013). Americans are experiencing longer life expectancies, and the senior population is larger than it has ever been in history. The number of Americans older than 65 years will double in the next 30 years—and the number of Americans older than 90 years will more than quadruple between 1980 and 2030 (Wickert et al., 2013). Older adults have also been reported to represent over 40% of the American labor force (Copeland, 2014). As a result of the recent economic recession, retirement is no longer an option for many older adults because they do not have the financial resources and benefits to continually support themselves and their families. They must continue to work in order to access income, employment-based health insurance, and 401(k) retirement contributions. In addition to the need for continued employment, older adults must often cope with the added stress of developing functional limitations that interfere with daily living, employment, and overall quality of life. Among adults aged 65 years and older, estimates indicate that as many as 80% have at least one chronic health condition and approximately 60% have two or more chronic health conditions (Wickert

et al., 2013). Among the most common of these conditions are vision and hearing loss, arthritis, orthopedic impairments, diabetes, and heart and lung disease. Older adults face other adjustment issues in addition to the onset of chronic illness or disability. These include financial instability, age discrimination, long-term care concerns, caring for grandchildren, and victimization and abuse (Dixon, Richard, & Rollins, 2003; Wickert et al., 2013). These psychosocial challenges can predispose some older adults, especially those who lack the social supports and coping resources to manage these challenges, to mental health conditions such as anxiety, depression, and substance use disorders.

People born with disabilities and those who acquired disabilities in early to middle life are also living longer (Smart, 2009). However, they often experience the effects of aging earlier (in their 40s and 50s) than those without disabilities. In addition, they are likely to develop secondary conditions and long-term complications of treatments (e.g., chemotherapy, radiation, surgeries, medications) for their primary conditions. Common secondary conditions include depression, arthritis, cardiovascular disease, pain, pressure ulcers, fatigue, contractures, spasticity, urinary tract infections, and mobility impairments (Gill, Murphy, Zechner, Swarbrick, & Spagnolo, 2009). As another example, individuals with SMI are prone to developing metabolic syndrome as they age (Gill et al., 2009; Newcomer, 2007).

Disability Legislation

The enactment of the 2014 Workforce Innovation and Opportunity Act (WIOA) and the 2008 Americans with Disabilities Act Amendments Act (ADAAA) has expanded definitions of disability to more broadly encompass new patterns and types of disabling conditions, thereby expanding access to VR services (in the case of the WIOA) and civil rights protections (in the case of the ADAAA) for Americans with disabilities (Rubin, Roessler, & Rumrill, 2016). These legislative initiatives are the latest in a long line of laws designed to extend VR services and other protections to people with a wide range of disabling conditions. In 1918, the Soldiers Rehabilitation Act called for the allocation of funding for VR programs for veterans with disabilities, and it was followed by the Civilian Vocational Rehabilitation Act of 1920, which expanded VR services to civilians with physical disabilities. These acts have been followed by the Rehabilitation Act and amendments that have further expanded definitions of disability to include sensory disabilities, developmental disabilities, psychiatric disabilities, and behavioral disorders (Rubin et al., 2016). The Rehabilitation Act Amendments of 1992 emphasized the need to prioritize services to individuals with the most severe disabilities and to address the underrepresentation of racial and ethnic minority groups in state VR programs, thus increasing the numbers of individuals who may otherwise be disqualified for services or fail to achieve competitive employment outcomes.

The WIOA amended the Rehabilitation Act in several important ways, perhaps the most timely being a strengthened emphasis on transition from public schools to adult life for youth with disabilities, improved linkages between state VR agencies and public school special education programs, and an absolute priority on competitive employment in integrated community settings as the preferred placement modality for people with significant disabilities (Rubin et al., 2016). In fact, the WIOA required that most long-term sheltered workshops close their doors

by 2016, which required employers, rehabilitation professionals, and people with intellectual and developmental disabilities and their families to reconceptualize what community inclusion really means in 21st-century America. The increased emphasis on transition to integrated adult community settings sets an important agenda for the growing numbers of public school children who are dealing with poverty and lifestyle-related disabling conditions such as asthma, allergies, MCS, and diabetes, as well as for the exponentially increasing number of children who are diagnosed with autism and other neurodevelopmental disorders.

Perhaps the statute that has the most wide-ranging implications for how disability is conceptualized is the Americans with Disabilities Act (ADA) of 1990, coupled with its 2008 amendments through the ADAAA (Rubin et al., 2016). The original ADA provided a three-pronged definition of a qualified person with a disability that includes: (a) a physical or mental impairment that substantially limits one or more major life activities; (b) a record of such an impairment, even in the absence of a current disability; and (c) being regarded as having such impairment even if the individual has no disability. Title I of the ADA afforded protections in the area of employment by prohibiting employers from discriminating against qualified individuals with disabilities and requiring employers to provide reasonable accommodations to qualified individuals unless these cause an undue hardship.

Unfortunately, the original intent and scope of coverage of the ADA was not realized by the enactment of this legislation. In fact, research conducted by investigators in the National Equal Employment Opportunity Commission (EEOC) ADA Research Project found that, in ADA Title I allegations closed by the EEOC between July 26, 1992 and December 31, 2008, merit resolutions favoring the charging party were found in only 22% of all closures (McMahon, 2012). Because various Supreme Court decisions and EEOC interpretations of the ADA narrowed Congress' original intention when crafting the ADA, the 2008 ADAAA was implemented on January 1, 2009 to strengthen the original legislation by broadening its coverage (Burke, Friedl, & Rigler, 2010). The ADAAA includes several major changes that redefine the concept of disability and broaden coverage to individuals who were not protected under the original act. First, the ADAAA includes a statement indicating that "the courts construe the definition of disability in favor of the broadest coverage of individuals permitted by the Act, consistent with the findings and purpose of the ADA" (Burke et al., 2010, p. 67). Second, the ADAAA changed the definition of major life activities to include normal cell growth, endocrinological functioning, neurological functioning, and immune functioning, to name just a few areas, and it listed 13 conditions that are presumptively considered to substantially limit major life activities. The latter provision means that people with presumptively limiting conditions such as blindness, multiple sclerosis, SMI, cancer, diabetes, epilepsy, intellectual disabilities, deafness, spinal cord injuries, and traumatic brain injuries are now automatically considered people with disabilities under the law. Third, whereas mitigating measures (e.g., medications, hearing aids, prosthetics) were used in some court cases under the original ADA to disqualify plaintiffs as people with disabilities, the ADAAA now mandates that these mitigating measures can no longer be considered in determining disability. Finally, episodic and/or temporary conditions were not explicitly covered in the original ADA, but they are now covered in the ADAAA.

The Affordable Care Act (ACA) is also likely to have an impact on the health and functioning of people with emerging disabilities (Rubin et al., 2016; Wickert

et al., 2013). The ACA's emphasis on prevention and early intervention is especially important for the growing numbers of Americans who are dealing with chronic health conditions; it may even reduce the numbers of people who are diagnosed with those conditions over time. The removal of annual and lifetime "caps" on health care coverage will help millions of people with severe and catastrophic disabilities continue to receive treatment over the course of their lifetimes, and the ACA's complete prohibition of preexisting condition exclusions ensures that people with chronic health conditions and disabilities can transfer from one employer-based group health insurance plan to another without experiencing an interruption in coverage.

MEDICAL, PSYCHOSOCIAL, AND VOCATIONAL CHARACTERISTICS OF EMERGING DISABILITIES

Although individuals with emerging disabilities experience many of the same barriers to independent living, community integration, education, and employment as individuals with traditional disabilities, they often encounter additional barriers that must be ameliorated if successful rehabilitation outcomes are to be achieved. Furthermore, although individuals with emerging disabilities have the same potential as those with traditional disabilities to achieve successful rehabilitation outcomes, they represent an underserved rehabilitation population. Their underrepresentation can be attributed to a variety of factors including medical controversies regarding the legitimacy of their conditions, lack of awareness on the part of service providers regarding the significance and severity of their disabling conditions, program eligibility criteria that exclude them from receiving rehabilitation services, and failure of individuals with emerging disabilities to apply for services because they do not consider themselves as having disabilities or they are unaware of the availability of rehabilitation services in their communities (Koch et al., 2012). Also noteworthy is the intersectionality of emerging disabilities with race, ethnicity, gender, age, and socioeconomic status. Marginalized populations that have traditionally been underserved by state VR agencies are also overrepresented in emerging disability populations (Fox & Kim, 2004).

Researchers from fields such as rehabilitation, disability studies, health psychology, and nursing (e.g., Arnold et al., 2008; Fox & Kim, 2004; Gibson et al., 2011; Koch et al., 2006; Raymond & Brown, 2000) have investigated the unique psychosocial and vocational implications of living with an emerging disability. Key themes found across samples of individuals with emerging disabilities include: (a) the ongoing struggle of managing a multitude of chronic symptoms and/or functional limitations that substantially impact their quality of life; (b) the added challenge of coping with comorbid medical or mental health conditions; (c) the psychological stress arising from diagnostic uncertainties and medical invalidation of their symptoms; (d) the negative physical and emotional impact of societal stigma and lack of understanding and support from significant others; and (e) the multitude of internal and external barriers to seeking, securing, and maintaining employment. The consequences of these experiences include uncertainty and anxiety; feelings of hopelessness associated with a continuing decline

in one's health and functioning without medical explanation; increased stress and feelings of isolation associated with having their symptoms disbelieved or invalidated by others; feelings of rejection and loneliness as a result of the lack of emotional support from significant others who question the validity of their symptoms; and exacerbation of symptoms when undiagnosed or misdiagnosed (Koch et al., 2012). For newly recognized conditions, relatively low prevalence estimates are reported due to lack of universal case definitions, further instilling doubt and disbelief among medical and health care providers, significant others, and diagnosed individuals themselves about the legitimacy of these conditions (Fujiura, 2001). Likewise, the rates of established conditions may be grossly underestimated because of the stigma of self-reporting or the extended length of time that many individuals must live with these conditions before accurate diagnoses and effective treatment are provided.

Multitude, Chronicity, and Severity of Symptoms

Emerging disabilities often affect multiple organ systems and/or functional domains. Consequently, individuals with these conditions experience substantial difficulties in performing ADLs and engaging in other pursuits that bring meaning to their lives (e.g., childrearing, social engagements, recreation and sports, hobbies, community events, worship, education, employment). Individuals with these conditions may experience significant psychological distress in making comparisons of their pre- and postdisability capabilities (Smart, 2009). Emerging disabilities such as fibromyalgia, MCS, chronic Lyme disease, and polytrauma are associated with a vast array of symptoms such as chronic pain, insomnia, fatigue, sleep disturbances, muscle weakness, and cognitive impairments. Emerging disabilities such as autism spectrum disorders (ASD) and attention deficit hyperactivity disorder (ADHD) can also lead to impairments in multiple functional domains, especially learning and social cognitive abilities. One of the most debilitating symptoms associated with many emerging disabilities is pain. Some individuals live with constant pain with unpredictable vacillations in pain intensity. Others experience ongoing intermittent pain that is also difficult to predict. The fatigue associated with chronic pain has been described by many as even more debilitating than the actual pain itself, making it difficult to carry out even the most rudimentary of tasks (Arnold et al., 2008).

The vast majority of emerging disabilities discussed in this textbook are chronic illnesses. Chronic illness represents the leading cause of disability in the United States (Centers for Disease Control and Prevention [CDC], 2015), and although many chronic illnesses are treatable, most cannot be cured. The chronicity of these conditions, along with the lack of a cure, can be experienced by individuals as a devastating loss. Not only must they come to terms with their permanently changed status and identity, they must also make significant adjustments to their daily lives (Smart, 2009). Additionally, they must invest substantial time, physical and emotional energy, and financial resources into managing these conditions. Furthermore, although chronic illnesses may not initially pose substantial limitations to performing ADLs and essential job functions, they can lead to significant disability if not treated early and effectively by medical professionals

and if rehabilitation interventions are not implemented before symptoms become severe (Koch, Rumrill, Conyers, & Wohlford, 2013).

Many emerging disabilities are not only chronic, they are episodic and unpredictable. Individuals with these conditions may experience periodic “flare ups” (e.g., fibromyalgia), “attacks” (e.g., chronic migraines), medical crises (e.g., type 2 diabetes), or relapses (e.g., psychiatric disabilities) that make it difficult for them to predict how well they will be able to function from day to day. Daily planning of chores, social activities, and work can thus be emotionally taxing. The unpredictability of these conditions acts as a stressor resulting in uncertainty and feelings of loss of control because individuals never know when an episode or period of symptom exacerbation may occur (Smart, 2009). Smart described the vicious circle of stress and symptom exacerbation for individuals with unpredictable, episodic conditions, noting that the unpredictability of symptoms triggers stress responses that further exacerbate symptoms and lead to additional stress. Smart further noted that each relapse or symptom exacerbation is accompanied by an emotional response. Individuals with episodic courses of illness often have concerns such as “Will treatment be effective? Will this relapse be severe or moderate? How long will this episode last? Will I have my job when I come home from the hospital? Will there be residual effects? Will I return to my past level of functioning? Will my family take me back?” (Smart, 2009, p. 505). These concerns are magnified for individuals with emerging disabilities that are also progressive.

The unpredictable nature of these conditions can result in a lack of social support from others (e.g., family, friends, supervisors, coworkers) who do not understand how individuals with these disabilities can function so well one day and be completely incapacitated the next (Koch et al., 2012). Friends may become frustrated when individuals with unpredictable conditions repeatedly cancel social engagements. Lack of social support is an especially problematic issue for individuals with emerging disabilities that are medically debated because others in their lives may have a difficult time accepting that the individual has a disability if it is not readily diagnosable and labeled. Finally, many of these emerging disabilities (e.g., chronic Lyme disease, chronic migraines, fibromyalgia, MCS) are grossly underestimated in terms of the severity of symptoms and the substantial degree to which they can interfere with the capacities of individuals with these conditions to actively engage in meaningful life activities.

Multimorbidity

In 2012, approximately half of all adults in the United States reported having a chronic health condition, and one out of four adults reported multiple chronic health conditions (Ward, Schiller, & Goodman, 2014). Furthermore, multimorbidity (the presence of more than one chronic illness) has been reported to be present in almost three out of four individuals aged 65 years and older and one in four adults under the age of 65 years (Tinetti, Fried, & Boyd, 2012). Multimorbidity is associated with various emerging disabilities. For example, individuals with chronic pain often have more than one condition that causes pain. People who acquire disabilities from violent acts may have physical disabilities and co-occurring psychiatric disorders and/or substance use disorders. The same holds true

for individuals who survive extreme weather events who incur physical injuries that result in permanent disabilities and may also have co-occurring psychiatric disorders such as PTSD, depression, and anxiety. Individuals with SMI experience high rates of metabolic syndrome and reduced life spans because of co-occurring medical conditions (Gill et al., 2009). For individuals with SMI, the onset of these secondary complications can be attributed to a variety of factors including unhealthy lifestyles, lack of access to adequate health care, and long-term adverse side effects of treatments. For some individuals, diagnosis and treatment of the most obvious condition can lead to failure to recognize and treat co-occurring conditions that could be even more problematic in terms of their effects on the individual's functionality. Reported symptoms associated with secondary conditions may be inaccurately attributed by physicians to the primary disability.

Co-occurring mental health conditions are also common among people with emerging disabilities, with high rates of depression, anxiety, and substance use disorders associated with many of these conditions. Psychiatric disabilities can manifest as a result of a variety of contributing factors, including a genetic predisposition to these conditions along with the psychosocial challenges of coping with deterioration in health and functioning, being misunderstood and invalidated by others, and a lack of social support needed to effectively cope with their conditions (Koch et al., 2012). Finally, medical treatments such as surgery and pharmaceuticals can result in secondary complications and side effects that further impair functioning.

Diagnostic Challenges and Medical Skepticism

Diagnostic uncertainties, misdiagnoses, and skepticism on the part of medical providers are frequently associated with emerging disabilities. For many individuals with emerging disabilities, it can take years between the onset of symptoms and an accurate diagnosis and effective treatment of their disabling condition. For example, it has been well documented that, on average, individuals with psychiatric disabilities are not diagnosed and treated for up to 10 years after the onset of symptoms (National Alliance on Mental Illness [NAMI], 2011). Individuals with emerging disabilities such as fibromyalgia and chronic Lyme disease have also reported long prediagnosis periods. In many cases, specific biologic markers indicating the presence of pathology are absent, and diagnoses must be made based on patient self-report and the ruling out of other conditions. Others never receive an accurate diagnosis, and, in the long process of seeking medical validation, become so ill that they must disengage altogether from meaningful life activities such as employment, recreation, socialization, and community engagement (Koch et al., 2012). Even medically validated conditions such as autoimmune disorders can take months to years to accurately diagnose.

Finally, receiving a diagnosis can lead to relief and a sense of validation. However relief may be accompanied by feelings of despair, anxiety, and hopelessness when learning that there is no simple cure (e.g., medication, surgery, treatment) for the condition (Smart, 2009). Once diagnosed, those with conditions such as fibromyalgia, MCS, or chronic Lyme disease that are still medically debated may continue to question the accuracy of the diagnosis and fail to receive the supports

they need to cope with their condition. Even medically established conditions with recent dramatic increases in prevalence (e.g., ADHD, autism, bipolar disorder in children) are often disputed among physicians and researchers in the medical sciences in terms of whether these emerging disabilities are actually increasing in incidence or arise from greater awareness, better surveillance, over-diagnosing of these conditions, or reduced stigma in reporting. This skepticism on the part of physicians and researchers can create skepticism on the part of others in the lives of individuals with these conditions and doubts regarding the accuracy of these diagnoses.

In the long process of seeking out a diagnosis and effective treatment, individuals with emerging disabilities often receive treatment from more than one medical specialist and conflicting medical advice about how to manage their symptoms (Koch et al., 2012). Because symptoms may be associated with more than one disease, misdiagnoses may occur and ineffective treatment regimens may be prescribed. In fact, it is not unusual for individuals with emerging disabilities to be prescribed “numerous simultaneous treatments [that result in] worsening of a single disease by treatment of a co-existing one, and treatment burden arising from following several disease guidelines” (Tinetti et al., 2012, p. 2493). Long prediagnosis periods can be both exhausting and discouraging. In seeking out a diagnosis, individuals must expend an extensive amount of time and energy to participate in multiple treatment regimens and often exhaust their financial resources in the process. Job security may be threatened for those who are employed and must take a substantial amount of time off from work to participate in these treatments. Desperate for relief from their symptoms, some individuals may seek out alternative avenues of treatment and may be victimized by charlatans who promise a “cure” if they follow their expensive, nonmedically confirmed treatment approaches.

Fox and Kim (2004) noted that, whereas many individuals with disabilities have historically rejected the medical model that pathologizes disability, those whose conditions are not readily diagnosable fight for verification from the medical community. Medical diagnosis legitimizes their experiences and opens the door to needed services such as health benefits, rehabilitation services, independent living services, and necessary job accommodations from employers. Medical acceptance can also lead to greater social acceptance and validation as opposed to rejection of their disabling conditions from family members and others in their social support networks.

Stigma and Lack of Social Support

Although societal stigmatization has been well documented as a response to disability in general, stigma is an even more pervasive reaction to emerging disabilities, and the negative consequences of this stigma are far reaching. Young, Park, Tian, and Kempner (2013, p. 1) described stigma as “an established construct in the social sciences that describes a characteristic, trait, or diagnosis that discredits individuals and elicits prejudice, discrimination, and loss of status.” As previously noted, a common theme across research studies that have investigated the psychosocial aspects of living with a variety of emerging disabilities (e.g., MCS, fibromyalgia, chronic migraine headaches, ADHD) is the negative impact that

stigmatization (and the internalization of this stigma) has on their physical and psychological well-being of individuals with these conditions. Both qualitative and quantitative research investigating the psychosocial aspects of emerging disabilities such as asthma, fibromyalgia, Lyme disease, MCS, and fibromyalgia have documented stigma and lack of medical and social acceptance of these conditions as key factors undermining psychosocial adaptation to these conditions. These studies have also documented the negative impact that stigma has on individuals' physical and mental well-being, ability to self-manage their conditions, the number and severity of symptoms they experience, access to employment, and overall quality of life.

Many emerging disabilities have an insidious onset, and as Smart (2009, pp. 477, 479) noted, "more support is usually given for acute-onset disabilities because friends and family can clearly understand a sharp, sudden (often traumatic) onset... those with less ambiguous disabilities and chronic illness are given support and validation, including medical care, time off from work, time to rest, flowers, cards, and the general solicitude of others." Conversely, more ambiguous disabilities are often misperceived by family members, friends, physicians, other health care providers, and employers who fail to understand the severity of their symptoms, refuse to change their expectations of the individual, and withhold emotional and social support. Despite this ambiguity, individuals with emerging disabilities are acutely aware of the disability and its far-reaching impact on their lives (Sim & Madden, 2008).

Often, individuals with emerging disabilities appear to be healthy, and their symptoms are misinterpreted by others as character flaws. For example, individuals with chronic pain (e.g., chronic migraines, fibromyalgia) may be viewed as "weak" or as faking their pain in order to be relieved from performing undesired activities such as household chores or work outside the home (Holloway, Sofaer-Bennett, & Walker, 2007). Likewise, individuals who are injured on the job and experience ongoing pain are often viewed (even by rehabilitation professionals) as malingering for secondary gain (i.e., faking their symptoms so that they can continue to collect Workers Compensation benefits and avoid going back to work). Research investigating the psychosocial consequences of living with MCS has documented the common characterization of these individuals by significant others as psychosomatic or "crazy" (Gibson et al., 2011; Koch et al., 2006). People with obesity and co-occurring type 2 diabetes are often viewed with disdain because of American society's obsession with beauty and healthy living (Smart, 2009), and youths with ADHD may be treated as "lazy" or "uncooperative" when they experience challenges in completing school assignments (American Psychiatric Association [APA], 2013). It can be especially difficult for others to comprehend how individuals with episodic conditions can function normally for a period of time and then be completely incapacitated for days or even months. Due to the unpredictability of their symptoms and the lack of emotional and social support as a coping resource, individuals with emerging disabilities can be at risk of developing secondary health conditions, depression, and anxiety, which can exacerbate the symptoms of their primary conditions and further restrict their functional capacities.

Because many emerging disabilities are hidden, the invisibility of symptoms can lead to further questioning and doubt on the part of the individual, medical providers, family, friends, and employers (Koch et al., 2012). Additionally, individuals with relapsing and episodic disabilities (e.g., asthma, psychiatric disabilities)

whose symptoms are in remission (e.g., psychiatric disabilities) may believe that they no longer have a disability and that they can terminate treatment (Smart, 2009). Failure to understand the importance of ongoing treatment and self-management of symptoms, even during periods of remission, can lead to added complications and setbacks that undermine their health and ability to function at their highest levels.

Lack of societal understanding regarding the substantial degree to which newly recognized conditions (e.g., fibromyalgia) can impair functioning; societal failure to accept some conditions as disabilities (e.g., MCS, substance use disorders, chronic Lyme disease); and prejudice and fear regarding emerging disabilities such as SMI, violence-induced spinal cord injuries, and TBIs can often impede individuals with these disabilities from accessing needed social, rehabilitation, medical, and health care services (Fox & Kim, 2004). Stigma is especially an issue of concern for individuals who are believed to have caused their emerging disability by engaging in risky or unhealthy behaviors (e.g., smoking, abusing alcohol and/or drugs, overeating, failing to exercise). These individuals are often blamed for their conditions, and others may lack empathy and be resistant to providing the emotional and social support that these individuals need to cope with their conditions (Smart, 2009). When these individuals are also marginalized due to other personal characteristics (e.g., race, gender, sexual orientation, gender identity, socioeconomic status), the intersection of these multiple identities magnifies the negative attributions others assign to their disabling conditions and can further impair their mental and physical health.

Vocational Challenges

A consistent theme throughout the chapters in this book is the high rate of unemployment, underemployment, and premature disengagement from the workforce experienced by individuals with emerging disabilities. Unemployment can be partially attributed to the multitude of symptoms and/or functional limitations associated with emerging disabilities. Perhaps even more problematic for people with emerging disabilities are the barriers to employment created by external factors such as societal stigma, discrimination, and noninclusive, or even hostile, work environments. Furthermore, because of the disproportionate rates of emerging disabilities in socially and economically disadvantaged populations, discrimination can also occur as a result of membership in these other marginalized groups.

Again, because many emerging disabilities are invisible, misunderstood, medically debated, and stigmatized, employers may be reluctant to hire and provide workplace accommodations for individuals with these conditions (Koch et al., 2012). Employers and coworkers often fail to understand and/or validate the degree to which these conditions create barriers to carrying out essential job functions. Functional limitations may be attributed to undesirable personal characteristics as opposed to effects of their disabling conditions. Consequently, requests for accommodations are treated as unnecessary, even when these accommodations can be made at little to no cost.

Furthermore, individuals with emerging disabilities may not be aware of their eligibility for employment provisions under Title I of the ADA because they do

not perceive themselves as having a disability. Even for those who are aware of these provisions, the process of accommodation planning can be fraught with tension, especially for individuals with episodic conditions that are unpredictable. The inability to predict when they might experience new functional limitations, temporary setbacks, exacerbations, or flare-ups makes accommodation planning difficult for both individuals with emerging disabilities and their employers (Koch et al., 2013).

The prospect of disclosing that individuals have a disability as a prerequisite to receiving workplace accommodations may also be fraught with tension. Legitimate concerns regarding disability disclosure arise because individuals with emerging disabilities are acutely aware of the stigma associated with their conditions and may understandably fear negative repercussions if they do disclose (Cole & Cawthon, 2015; Dalgin & Bellini, 2008; Jans, Kaye, & Jones, 2012; Riley & Hagger, 2015). Because they are often members of other marginalized groups prone to discrimination, they may also be concerned that disclosing their status as an individual with a disability will put them at risk of experiencing double discrimination. If they do choose to disclose, they are likely to be perplexed by questions such as what to disclose, when to disclose, how to disclose, and to whom to disclose.

Even when employers are willing to accommodate individuals with emerging disabilities, coworkers may resent these employees and view the provision of workplace accommodations as unnecessary or as giving workers with emerging disabilities an unfair advantage. Negative reactions from coworkers can create a hostile work environment for individuals with emerging disabilities. Working in such an environment can result in substantial work stress, undermine their job performance, negatively impact their overall health and well-being, exacerbate symptoms of their disabling conditions, and contribute to the development of comorbid medical conditions and secondary complications (Cortina et al., 2001; Dillon, 2012; Reio & Ghosh, 2009). Individuals may subsequently be terminated from employment because of poor job performance or voluntarily resign because the exacerbated symptoms of their emerging disabilities have left them incapable of adequately performing their job tasks.

When considering employment implications of emerging disabilities, the developmental stage of the individual with the emerging disability must be taken into account. Youths with emerging disabilities (e.g., asthma, obesity, diabetes, psychiatric disabilities, ADHD, ASD) may be excluded from engaging in normative career-related experiences during critical years when their self-images and work personalities are developing (Ribet, 2011). For example, they may fail to participate in early career development experiences such as household chores, sports, extracurricular school activities, and part-time employment that help them to build the general employment-related skills and the self-confidence to pursue careers of their choice. They may avoid participating in these experiences because of parental overprotection, functional limitations (e.g., poor social skills, physical limitations), a lack of self-esteem, and/or fears regarding the impact of these experiences on their health. Their peers may exclude them from social activities, labeling those with these emerging disabilities as “weak,” “frail,” “crazy,” “dumb,” “lazy,” or “weird.” Youths with emerging disabilities may internalize these labels and fail to perceive themselves as capable of performing in the role of worker.

Poverty also restricts their opportunities to participate in important career development activities because families may not have the resources to

financially support their children to engage in these activities. Parents whose children receive entitlement benefits such as Social Security Income (SSI) and Medicaid may discourage these youths from considering employment out of fear that they will lose these much-needed benefits. Additionally, children and youths with some emerging disabilities may not be encouraged by school personnel to develop high career aspirations (Davis, 2015). Finally, many of these children do not receive transition planning services to support them in pursuing postschool outcomes such as a college education or employment. Because of all these factors, youths with emerging disabilities (e.g., ADHD, psychiatric disabilities) are at risk of experiencing undesirable outcomes in later adolescence and adulthood such as dropping out of high school or college, unemployment, substance use disorders, incarceration, declines in their physical and mental health, homelessness, and suicide (Adamou et al., 2013; Davis, 2015; McKeague, Hennessy, O'Driscoll, & Heary, 2015).

For individuals who acquire midcareer emerging disabilities, the prospect of entering or maintaining employment can be fraught with anxiety and even misguided advice. Upon diagnosis, some individuals may be advised by health care professionals that employment is not a feasible goal or, if employed, that they should discontinue working (Koch et al., 2013; Sullivan & Hyman, 2014). This advice is given despite the fact that research has demonstrated that employment is associated with many positive health-related outcomes such as reduced symptoms, treatment adherence, better overall health, fewer hospitalizations, and better health-related quality of life (e.g., Dunn, Wewiorski, & Rogers, 2008; Hall, Kurth, & Hunt, 2013; Hergenrather, Zeglin, McGuire-Kuletz, & Rhodes, 2015; Miller & Dishon, 2006).

Finally, older adults with emerging disabilities must contend with stigma and discrimination associated with their age as well as their disabling conditions (Wickert et al., 2013). Older adults are often perceived by employers as more expensive than younger workers in terms of salaries and benefits. Employers may also have concerns about their ability to be as productive as younger workers. In addition, stereotypes about older workers such as being inflexible, resistant to change, and unable to keep up with emerging technologies in the workplace can make employers reluctant to hire older workers.

POPULATIONS AT RISK OF ACQUIRING EMERGING DISABILITIES

Kim and Fox (2004) found that, in comparison to individuals with traditional disabilities, individuals with emerging disabilities are more likely to be women, economically disadvantaged, older, and members of racial/ethnic minority groups. These individual characteristics intersect with disability characteristics and social and environmental factors (e.g., stigma, discrimination, social injustice, inequities in health and health care, violence, climate change) to magnify the challenges presented by the disabling condition itself. Because the most socially and economically disadvantaged groups in American society are also the most prone to acquiring emerging disabilities, these individuals often encounter “dual” or even “triple” discrimination in all areas of life including housing, community integration, education, and employment. In other words, not only are they discriminated against on the basis of their disability, but they may also be discriminated against

because of their race, ethnicity, gender, gender identity, age, socioeconomic status, and/or sexual orientation.

Of all the at-risk populations discussed in this section, those living in poverty experience the highest rates of emerging disabilities as well as greater symptomatology and poorest health-related outcomes (Fox & Kim, 2004). People living in poverty are more likely than those living above the poverty line to be victimized by violent crime, to experience the negative health consequences of climate change and severe weather events, and to suffer from the health-related consequences of lifestyle factors that predispose them to emerging disabilities (e.g., asthma, type 2 diabetes). They are predisposed to emerging disabilities due to risk factors such as unhealthy housing, unsafe neighborhoods, poor nutrition, degraded air quality in their homes and communities, indoor and outdoor air pollution, and disparities in access to health care.

Perrin and colleagues (2007) reported that the number of children with chronic health conditions has dramatically increased over the past four decades, and the number of children receiving SSI has more than tripled over the past two decades. Among the conditions that have seen the largest increases in children are obesity, asthma, and ADHD. Children living in poverty are the most susceptible to these conditions. Numerous factors are believed to have contributed to these increases, including increased incidence of low birth weight, maternal cigarette smoking, and reductions in fruit and vegetables in children's diets, along with more consumption of fast foods, displacement of physical activity by television viewing, parental anxiety about children's outdoor play, lack of recreational opportunities (especially in urban areas), and more time spent by children indoors, which exposes them to indoor allergens. Additional contributing factors for children living in poverty include certain infestations created by crowded and unsafe housing and secondary cigarette smoke.

Although rehabilitation counselors typically provide services to adolescents and adults, these dramatic increases in childhood chronic health conditions have significant implications in terms of emerging rehabilitation consumer populations. According to Perrin et al. (2007), asthma persists into adulthood for about 25% of children, and ADHD persists into adulthood for about half of children. Additionally, ADHD is associated with poorer employment outcomes, increased crime and incarceration, increased motor vehicle accidents, and secondary mental health conditions such as anxiety and depression (APA, 2013; McKeague et al., 2015). Obesity that persists into adulthood is linked to type 2 diabetes and increased risk for cardiovascular disease (Cha et al., 2015). Given the persistence of these conditions into adulthood, without rehabilitation services, individuals with these conditions are vulnerable to experiencing unemployment and underemployment, poorer overall quality of life, greater isolation, less community participation, and greater need for support (e.g., health care, housing, employment) from government agencies.

In addition to these chronic health conditions, researchers have reported disproportionate rates of mental health disorders in youths. According to data from the National Comorbidity Study–Adolescent Supplement survey (Merikangas et al., 2010), approximately 20% of American youth are affected by a mental health disorder severe enough to impair their functioning at some point in their lives. About 40% of those reporting a mental health disorder also met criteria for at least one additional mental health disorder. Children whose parents had less education and were divorced were at higher risk than other children in the sample for a mental health disorder.

Women also represent a population that is at an increased risk of acquiring emerging disabilities and chronic illnesses. The incidence of conditions such as autoimmune disorders, depression, anxiety, and PTSD and other trauma- and stressor-related disorders is higher in women than it is in men. Women are also more likely than men to be victims of intimate partner violence, with one in three women worldwide estimated to have experienced physical and/or sexual violence (World Health Organization [WHO], 2013). Women experience higher rates of chronic pain than men, but they are less likely than men to be prescribed pain medications by their physicians (Institute of Medicine [IOM], 2011). In addition, women are more likely than men to be diagnosed with a psychosomatic condition, even when presenting with similar symptoms. Individuals who are determined to have medically unexplained symptoms are also more likely to be female (Nimnuan et al., 2001). They have higher rates of controversial and medically debated conditions such as fibromyalgia. Not only do women experience disparities in their health status compared to men, they also encounter inequities in access to and quality of health care. Women experience greater social, cultural, and economic disadvantages that restrict their access to health care, education, and employment, thus increasing their risk for emerging disabilities (Ribet, 2011). It is also noteworthy that somatic symptoms disorder, a condition that is observed more frequently in primary care than in mental health settings, is diagnosed more frequently in women than in men (APA, 2013). This phenomenon calls into question the role that gender and gender bias play in the validation or invalidation by physicians of medical symptoms reported by women.

Ribet (2011) noted that people of color are another disproportionately represented group in emerging disability populations. For example, Blacks have the highest rates of obesity, hypertension, and diabetes. In comparison to non-Latino Whites, higher rates of PTSD are found among Latinos, African Americans, and American Indians. In comparison to Whites, higher rates of asthma occur among multirace, Black, and American Indian/Alaska Native persons. Compounding the higher rates of emerging disabilities in these populations is the problem of inequitable access to health care for individuals from racial/ethnic minority groups. Health care disparities associated with race and ethnicity have been observed in both the diagnosis and treatment of medical conditions as well as in the quality of care that members of racial/ethnic minority groups receive. As examples, Black patients are more likely than their White counterparts to receive higher cost procedures, even in the presence of adequate health insurance coverage for major diagnostic and therapeutic procedures (IOM, 2011). They are also less likely to receive pain medication.

Lewis and Burris (2012) noted that these inequities are mirrored in the VR system. In fact, rehabilitation researchers have documented that, in comparison to their White counterparts, individuals from racial/minority groups and other underserved populations participate in rehabilitation programs at lower rates, receive fewer services, and experience fewer successful outcomes. Section 21 of the Rehabilitation Act emphasizes these inequities as well as the need for VR systems to employ targeted strategies to eliminate inequities in access, service delivery, and rehabilitation outcomes. In response to Section 21, Lewis and Burris (2012, p. 169) proposed a working definition of disability disparities:

A disability disparity exists when an underserved, ethnic, or racial minority cultural group's desire is to receive services within the formal

rehabilitation, and disability system (public or private). However, there exists a differential experience based primarily on cultural orientation resulting in a higher incidence of disability, and/or lower participation levels in the formal helping system, and/or fewer successful individual outcomes in comparison to majority cultural groups.

CONCLUSIONS

The world is rapidly changing, and along with these changes, the nature and needs of rehabilitation consumer populations are constantly in flux. Therefore, the purpose of this chapter was to define the concept of emerging disabilities and to provide an overview of the contemporary political, social, and environmental trends that influence the onset of new medical and mental health conditions in the population or increases in incidence of established conditions. We also highlighted some of the unique medical, psychosocial, and vocational characteristics of emerging disability populations. Finally, we examined populations that are most vulnerable to acquiring emerging disabilities. What is particularly noteworthy about these populations is that they represent the most socially and economically disadvantaged groups in American society as well as a vastly underserved rehabilitation population.

In 2004, Fox and Kim (p. 324) recommended that:

As so-called “emerging disability populations” knock on the door of service providers whose systems are designed to work with “traditional disability populations,” greater efforts must be made to more clearly understand what emerging disabilities are in order for these service delivery systems to remain relevant.

More than a decade later, we have seen an increased focus in the scholarly literature on emerging disabilities and innovative practices (e.g., integrated service delivery models, health promotion strategies, illness self-management, trauma-informed service models, evidence-based practices in psychiatric rehabilitation, job retention and career maintenance interventions) that are responsive to their unique rehabilitation concerns. Yet rehabilitation systems are still not fully prepared to effectively address the multifaceted needs of individuals with emerging disabilities. Thus, it is imperative that future rehabilitation counselors acquire the knowledge and skills to respond more effectively to consumers whose disabilities may not match with traditional conceptualizations of disability and whose rehabilitation needs may not be addressed by current rehabilitation service delivery approaches.

In response to Fox and Kim’s (2004) recommendation to expend greater efforts toward understanding emerging disabilities, we have devoted the rest of this book to a more in-depth exploration of causes, types, and consequences of emerging disabilities. A substantial portion of each chapter is devoted to innovative strategies that can be incorporated into each phase of the rehabilitation process of service delivery. It is our hope that the information provided in this book will serve as an impetus for future rehabilitation counselors to “lead the charge” (Koch et al., 2012, p. 137) in providing more responsive rehabilitation services to individuals with emerging disabilities.

DISCUSSION QUESTIONS

1. What contemporary trends do you think are the most influential on the way disability is defined, diagnosed, and treated?
2. What are your thoughts regarding the inclusion into the constellation of disabilities those illnesses and conditions that are medically debated, questioned in terms of their legitimacy, or treated as medically undiagnosed symptoms? What changes in disability definitions are needed to include these conditions?
3. Considering the unique medical, psychosocial, and vocational characteristics of emerging disabilities, what are the implications for rehabilitation counseling practice?
4. What are the barriers to participating in rehabilitation programs that are encountered by people with emerging disabilities? What changes in rehabilitation policies, procedures, and processes do you think are necessary to increase access to/participation in rehabilitation programs for individuals with emerging disabilities?
5. What information did you glean from this chapter that is new to you? What topics would you like to learn more about and how can you go about increasing your knowledge regarding these topics?

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