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Introduction to the Issue

This issue of the Vocational Evaluation & Career Assessment Professionals (VECAP) Journal offers a diverse set of projects aimed at advancing knowledge and practices of vocational evaluation and career assessment. Each of the articles in this issue relate to the provision of services to specialized populations. While general information regarding vocational evaluation and career assessment is helpful, the articles in this issue contribute to providing readers with specific information that can be applied uniquely to different populations.

First, Dr. Jennifer McDougal and her team provide practical guidance related to the provision of vocational evaluation services to individuals who are deaf and hard of hearing, blind and low vision, deafblind, homeless, older adults, speakers of other languages, youth in transition or have a substance use disorder. Their case study approach is highly effective for addressing the complex considerations required to address the needs of each population. Second, Dr. Bridget Green and her team provide an in-depth discussion regarding age appropriate and meaningful assessment among transition age population. Their connections between executive function and assessment provide readers with insights that can be applied to work with this population. Finally, Lindsay Chute provides a practical discussion regarding working with individuals on the autism spectrum. Lindsay Chute was a 2020 VECAP Student Literary Contest winner and we are proud to feature her article in this issue.

Thank you for your interest in the VECAP Journal. We hope you find these articles to be enlightening and helpful to your professional work. Please do not hesitate to reach out to me, or any of the authors, if you have questions.

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Vocational Evaluation with Special Populations

Jennifer McDougal, Matthew L. McClanahan, Steven R. Sligar, Martha H. Chapin

Abstract

Vocational evaluators must work with a very diverse set of people. The purpose of this article is to provide practical guidance to evaluate people from eight special populations (i.e., deaf and hard of hearing, blind and low vision, deafblind, homeless, older adults, speakers of other languages, substance use, and youth in transition). The eight populations are grouped according to two causalities: (a) body functions and (b) structural or environmental factors with the exception of substance users and youth in transition which are affected by both causalities. Regardless of cause, all of the groups discussed experience difficulties with day-to-day activities and community participation, including employment. Using a mini-case study approach the authors describe the population, offer a case that represents some of the critical elements, discuss a course of action, and present additional tips.

Keywords: Vocational evaluation, low incidence population, special population, deaf, hard of hearing, blind, low vision, deafblind, homeless, older adults, speakers of other languages, substance use, transition

Introduction

Vocational evaluators (VE) and rehabilitation professionals often seek ways to improve service delivery and engagement among clients who may be in low-incidence populations, including those termed “special populations.” The phrase “special populations” has different meanings and is often used to refer to a group of people who are disadvantaged. The World Health Organization’s (WHO) broad statement includes “persons with mental health concerns... the most vulnerable and disorder-prone groups of population such as refugees, people affected by natural and man-made disasters, indigenous people and minorities, and people who need special care such as the elderly and children” (Wisner & Adams, 2002, p. 38). The Strengthening Career and Technical Education for the 21st Century Act (Perkins V), provides a more specific definition which states the term special populations includes:

- Individual with disabilities,
- Single parents, including single pregnant women,
- Individuals preparing for non-traditional fields,
- Out of the workforce individuals,

- Economically disadvantage including low-income youth and adults,
- Homeless individuals,
- Youth who are in, or have aged out of the foster care system,
- Youth with an active military parent, and
- Individuals with other barriers to educational achievement, including individuals with limited English proficiency (CA Perkins Joint Special Populations Advisory Committee, 2021).

Whether government sponsored or a non-government organization (NGO), a program establishes policies and procedures that provide a definition of the group(s) to be served. The Americans with Disabilities Act (ADA) is a civil rights law that prohibits discrimination against people with disabilities and also serves as the basis for the definition of people with disabilities. Other legislation that provide definitions include the Workforce Innovation and Opportunity Act (WIOA) that contains the Rehabilitation Act, The Higher Education Reform and Opportunity Act, and the Individuals with Disabilities Education Act. For this article, eight groups representative of the WHO and Perkins V definitions are discussed in relation to the process and tools used in the evaluation process.

Vocational evaluators and other rehabilitation professionals benefit from understanding how to assess and approach these special populations due to the high need of vocational services associated with these groups. Employment rates among special populations are often lower than those from other populations without the additional barriers (U.S. Bureau of Labor Statistics [BLS], 2020; Edmiston, K., 2020). An accurate evaluation requires rehabilitation professionals to use various instruments, tools, and techniques to collect information and take the next steps toward helping a client choose a career. This article will assist readers to examine a specific case, learn about a possible plan of action, and review points to consider about the case and the population. The purpose of this article is to provide practical guidance in working with people from special populations. We recognize that VEs work in a variety of settings (US Department of Education, 2017), may have different roles and responsibilities, and have varying amounts of information about clients (Thomas, 1997/2020). The cases are intended to serve as examples that may or may not apply to your employment setting. However, consider the cases as very broadly representative of the issues raised and evaluation provided.

Tools of the Vocational Evaluator

To provide services, vocational evaluators use tools designed to assist them to develop effective and efficient employment plans. Thomas (1997/2020) described three tools used by VEs: (1) instruments (tests, work samples, and other psychometric instruments), (2) techniques (the use of the situation or community as the basis for the assessment), and (3) strategies (accommodations, modifications, and identification of learning preferences and supports). Currently available in the market are a myriad of tests (i.e., *instruments*). In a review of seven graduate textbooks used in the education of rehabilitation professionals, there were more than 1,150 different tests designed for adults (Schuster, 2020). This study did not include tests for children. Psychological Assessment Resources, Inc. (PAR), one of the largest test vendors, has over 600 different tests (<http://www4.parinc.com/>). Another vendor, PRO-ED, Inc., has over 400 tests (<http://www.proedinc.com/>). Many of these tests are for diagnosing specific populations of persons with disabilities, but not the other special populations.

Techniques are used with special populations because they are criterion-referenced, that is measured against a set standard, and easily modified to accommodate different learning preferences. Techniques vary from an improvised task (e.g., the VE asks the client to perform a job to determine interest and aptitude) to an on-the-job evaluation where the client goes to a job site and attempts to perform the required duties while also interacting with coworkers and supervisors. Another technique

is an ecological assessment that includes a wide range of areas such as an evaluation of personal traits, family supports, and community supports, for example, availability of public transportation.

Strategies include legally mandated accommodations for people with disabilities. An accommodation is an alteration of the testing environment, format, or equipment (Disabilities, Opportunities, Internetworking, and Technology [DO-IT], 2017) within the area of employment. As asserted in Title VII of the Civil Rights Act (1964), the use of discriminatory employment tests and selection procedures are prohibited (see amendments to ADA 1990, and Age Discrimination in Employment Act of 1967). Furthermore, legislation requires that employers provide reasonable accommodations for test administration (Equal Employment Opportunities Commission [EEOC], 2010). Two potentially useful resources related to disabilities and test accommodations include the Job Accommodation Network (JAN; www.askjan.org) and the website for the University of Washington's Disabilities, Opportunities, Internetworking, and Technology (DO-IT; <https://www.washington.edu/doi/>).

Modifications, a type of *strategy*, necessitate changes in performance expectations (DO-IT, 2017). Often implemented by teachers, vocational evaluators, and job coaches, modifications are used to determine, or aid, the mastery of a task and are commonly reported in planning documents (e.g., Individual Education Plans, Individual Plans for Employment). Modifications are also used in the provision of services, such as in supported employment. Examples of modifications include substituting tests (e.g., verbal to nonverbal interest inventory), applying the use of additional materials (e.g., latex to non-latex gloves), changing the assessment setting (e.g., inside to outside), altering the task that is performed (e.g., assembly [production] task to a disassembly [salvage] task), or exchanging tools (e.g., manual to electric stapler). Such accommodations and modifications are used to identify learning preference and natural supports in the environment. Once identified, these learning preferences and natural supports help to foster continued success in the class or on the job.

A way to look at the differences between accommodations and modifications is in the expectation of performance. An accommodation is often referenced as a way to *level the playing field* because the expectation of performance does not change for the person receiving an accommodation. For example, a common test accommodation is to provide extra time for a student with a learning disability (LD). The student with LD is provided 90 minutes to take the same test as a student without LD, who is given 60 minutes. However, because the testing, and grading are the same for both individuals, the expectations of performance also remain the same. In contrast, a modification changes the expectation. Given the same situation as above, a person with LD may be given the same time (60 minutes) but only half the questions. Because the test and grading are modified, so is the expectation of knowledge demonstration (i.e., performance). In the first example, the test may be administered to compare the student's knowledge against peers or a standard. In the second example, however, the modified test may be administered to determine how much progress the student has made over time.

Two final considerations are cultural influences (e.g., language spoken at work or at home, beliefs about work) and the inclusion of assistive technology (AT), which is defined in the Technology Related Assistance to Individuals with Disabilities Act of 1988 (1998) as "... any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities (p. 3)." The use of AT may be to provide an accommodation (e.g., a test in Braille), make a modification (e.g., change from audible to visual alert), or serve as the purpose for the evaluation. For example, a stroke survivor may try different environmental control systems to determine which one best matches their situation. Once the AT is identified, then it may be applied in an evaluation.

Evaluating Special Populations

Referral questions determine the purpose of the evaluation, and the evaluator is responsible for selecting tools that will provide information for answering the questions (Power, 2006). The selection of the right tool is critical because the wrong trait may be measured, an inaccurate diagnosis may occur, or other misinformation may be provided. Instrument selection is limited due to the few tests available for the populations covered in this article.

Professionals have a variety of instruments available to help with diagnosis of a disability (e.g., learning, cognitive impairments, mental health) and related functional limitations. Instruments are also used to measure aptitudes, interests, values, intelligence, personality, and other domains with the general population but there are very few instruments designed specifically for persons with disabilities. The use of the later instruments with persons with disabilities are typically discussed in terms of accommodations and modifications. For example, individuals with hearing or visual impairments often struggle with mastering English reading skills. Suggested accommodations to measure English reading skills include the use of sign language interpreters, Braille, or enlarged print (see Case, 2005; Case, Zucker, & Jeffries, 2005; Power, 2006). However, the majority of tests, which require English comprehension, are not designed for populations with sensory impairments.

The populations discussed below (i.e., homeless, older, substance users) are all diverse, but they may speak English and identify with the mainstream culture. Therefore, these populations may be able to take most tests on the market. However, given the risk factors associated with being homeless, older, or a substance user, there is a high probability of an added disability being present, which may limit their access to certain tests. Speakers of another language may also experience similar issues. The three common denominators across all groups are: (1) lack of specific tests, (2) persons fitting in more than one population group, and (3) need for accommodations or modifications.

Special Populations

The eight populations discussed in this article are grouped according to two causalities: (a) body functions and (b) structural or environmental factors (Peterson, 2016). Persons who are deaf, hard of hearing, blind, low vision, or deafblind all have physical impairments that limit functioning, especially in communication, which is the cornerstone of the helping relationship. Persons who are homeless, older, and speakers of languages other than English have functional limitations that are primarily due to environmental factors. Persons with substance use disorders (SUDs) span both causative factors. When the biopsychosocial model of substance use (Goodwin & Sias, 2014) is applied to the SUD population, both body structure and environmental factors should be considered. The final population discussed in this article, students in transition, also span both causative factors and are in a separate group due to legal mandates. Regardless of cause, all eight of the groups experience difficulties with day-to-day activities and community participation. Each population is presented with information about the population, a case example, course of action, and points to consider in the evaluation. Note that the persons described may need other services, but this article mainly focuses on vocational evaluation.

Communication Issues

Persons who are Deaf, deaf, or hard of hearing

About the population

No legal definition for deafness exists, but state and federal programs (e.g., vocational rehabilitation, public education) designed for such individuals have eligibility requirements based on hearing loss. Hearing loss is measured in decibels (dB) and the ranges are: 0 to 15 (*Normal*), 16-25 (*Slight*), 26-40 (*Mild*), 41-55 (*Moderate*), 56-70 (*Moderately Severe*), 71-90 (*Severe*), and greater than 90 (*Profound*). For purposes of comparison, speech is normally around 50 dB (Clark, 1981). Persons who have severe to profound hearing loss are audiologically deaf, and persons who have a mild to moderate severe hearing loss are considered as *hard of hearing*. The term *hearing impaired* is used to describe either group, but it is considered offensive and is no longer used.

The prevalence of hearing loss, which includes individuals who are deaf, underscores a widespread issue. About 15% of adults aged 18 and over report some degree of trouble in their hearing. Hearing loss increases with age as 2 percent of adults aged 45-54, 8.5% for 55-64, 25% for 65-74, and 50% for those over 70 have a disabling hearing loss (National Institute on Deafness and Other Communication Disorders [NIDCD], 2016). Persons who are hard of hearing may use hearing aids to amplify sounds, attend schools that are primarily designed for hearing children, and may strongly identify with the hearing culture as opposed to the Deaf culture.

The prevalence of deafness is difficult to measure, though the Gallaudet Research Institute (GRI; Mitchell et al., 2006) reports that nearly 4 people per thousand in the US population who are over 5 years are *functionally deaf*. Consequently, deafness is considered a low-incidence disability. Additionally, more than 90% of children who are deaf are born to hearing parents (NIDCD, 2016), which means that these children are probably linguistically delayed because their parents do not have communication skills. Medically, physicians had no treatment for deafness until the 1980s when the commercial cochlear implant (CI) became available. The CI is effective, providing electrical stimulation (as opposed to acoustic stimulation that is more commonly used today) to reach the auditory nerve (Brown et al., 2003). Though the use of the CI is effective its application is controversial within the Deaf community due to issues around the age of implementation.

Most people who have a hearing loss speak their native language and identify with the hearing culture. The number of persons who are deaf and use American Sign Language (ASL) is unknown (Mitchell et al., 2006). Identification with the Deaf culture, as indicated with a capitol D, is a choice and not based on the level of hearing loss. This choice may result in the inclusion of those who are hard of hearing, but not technically deaf, into the Deaf culture. Therefore, the number of persons who identify with the Deaf culture is also not known. One caveat is that persons who are Deaf, deaf, or hard of hearing are grouped together for census purposes, but they are all uniquely different and identify with either the hearing or Deaf culture. Persons with a hearing loss from another culture (e.g., Hispanic, Asian) may be considered as tri-cultural.

Case

Justin Davies (19-year-old, single, Caucasian, male) was born profoundly deaf and recently graduated from a day school program for students who are deaf in Houston, TX. He uses American Sign Language (ASL) to communicate. Justin considers himself to be culturally Deaf in addition to his audiological diagnosis of deafness (as indicated by the lower case “d”). His Mom knows some ASL and his Dad gestures. He dates a hearing woman, but his friends are mostly Deaf. He uses assistive technology, including an Internet relay service to make calls and order pizza, a combination doorbell-phone flashing alarm, and a digital alarm clock that is particularly loud and a bed shaker. In terms of hobbies, Justin enjoys spending time with his friends, attending captioned movies, and watching sports such as football. His work experience has been quite limited; his parents placed him in summer remedial programs while he was in high school. Academically, Justin was able to meet the entrance requirements for Gallaudet University. Now, he seeks advice on selecting a college major.

Your course of action

Gallaudet University is a good choice because you feel that Justin's needs will be met there. Also, this university is the only liberal arts college for the Deaf (people who are Deaf prefer to be called "the Deaf") in the world. You conduct an intake interview with a certified sign language interpreter to gather information about his past activities and current interests. Considering his reading level and age, you administer an interest inventory that has statements about his likes, preferences, and values. To administer the inventory as effectively as possible, you invite the help of the interpreter to sign the directions to Justin. He asks the meaning of some words and you provide a definition and example. Using the results, you are able to identify three interest areas that match his past experiences.

Points to consider

An assessment for a person with hearing loss needs to include both expressive and receptive communication, regardless of whether or not the individual knows sign language. Justin uses ASL as his primary language and English as his secondary language. Because Justin is congenitally deaf, he accepts his disability and is concerned about age-appropriate decisions like where to go to school and what to choose as a college major. His educational background is typical for a Deaf student from a metropolitan area. He is accustomed to interpreters in the classroom, and he has both hearing and Deaf friends. Justin uses assistive technology (AT) for communication and environmental awareness (e.g., signaling, alerting). When you interact with Justin, you can help minimize miscommunication by encouraging him to use his primary language (ASL) instead of speaking English. You may need to brief the ASL interpreter about any technical terms (e.g., name of tests) to better facilitate the communication process. When communicating with Justin, remember to maintain eye contact with him, *not* the interpreter. For persons who are deaf and have limited language skills, an ecological or holistic evaluation is critical (for an example of a communication evaluation, see Long, 2003).

Persons who are Blind or have Low Vision

About the population

Legal blindness has different definitions based on the agency involved. A common definition is from the Social Security Administration (1983), which states,

Statutory blindness is defined in the law as central visual acuity of 20/200 or less in the better eye with the use of correcting lens. An eye which has a limitation in the field of vision so that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered to have a central visual acuity of 20/200 or less. (para 1)

Low vision is "a person who has measurable vision but has difficulty accomplishing or cannot accomplish visual tasks even with prescribed corrective lenses but who can enhance his or her ability to accomplish these tasks with the use of compensatory visual strategies, low vision devices, and environmental modifications" (Corn & Lusk, 2010, pp. 4-5). The term vision loss refers to both groups.

Determining the number of people in the US who are blind is difficult because population figures are based on estimates. A vision impairment is reported by approximately 12 million people and this number is comprised of one million who are blind, three million who have vision impairment after correction (e.g. glasses, surgery, medication), and eight million with vision impairment due to uncorrected refractive error (Centers for Disease Control and Prevention [CDC], 2020c). The most

common causes of blindness in adults are age-related diseases (e.g., macular degeneration, diabetic retinopathy, glaucoma, CDC, 2020b) and roughly 75 thousand people become visually impaired each year (National Federation of the Blind [NFB], 2021). Vocationally, about 70% of working age adults with vision loss are unemployed (NFB, 2021) and about 2000 workers sustain on-the-job eye injuries that require medical treatment (CDC, 2020c). As the general population ages, the risk of becoming blind or having low vision increases significantly, which may result in increased risk of falls or depression, difficulty identifying medications, or performing daily living skills (AFB, 2020b). Persons who are blind and those with low vision are often reported as one group. However, keep in mind that each has unique needs.

Case

Twyla Carter (24-year-old, single, African American female) from Paducah, KY, has retinitis pigmentosa (RP), which causes a progressive deterioration of her peripheral vision. First diagnosed when she was a child, she is now legally blind. She has difficulty seeing at night and her field of vision is narrow (10 degrees), causing her to trip over objects. She uses a cane and rides public transportation to travel independently. She attended a public school with an IEP that provided her a specially trained vision teacher as well as other disability-related services. After graduation, she was briefly employed as a customer service representative at a call center. At work she used a computer with screen reading and special text-to-speech software to place customer orders, send emails, and use word-processing programs. When the center closed, she was laid off and returned home to her family, whom she considers to be very supportive of her. Since being laid off, Twyla has spent much of her time at home, using her computer to post on social media, read blogs, and communicate with her friends. She also volunteers at her church to help with general clerical duties such as answering the phone, typing and copying the weekly bulletin, and using her closed-circuit television (CCTV) to sort correspondence. Recently, she has become withdrawn. Twyla no longer desires to go to the church or spend time with her friends. Her parents are concerned and want her to get help.

Your course of action

You review the background information to learn about her RP and try to learn how long she has functioned as a person who is blind. In addition, you inquire about any potential mental health issues. When you meet with Twyla, you review her background with attention to her job duties, transportation, computer skills, and how she accesses print materials. You ask about her current situation and her desire to work. You may administer a screening instrument for depression to address her withdrawal from church and social activities. If a mental health issue is suspected, referral to a clinical counselor may be needed.

Points to consider

Conducting an assessment with a person who has a vision loss always needs to include two domains. The first domain is communication access. For example, you should know if, or how, the person is able to read printed materials. In this case, Twyla uses a screen-reading program and a CCTV. Her history indicates that she has proficiency with the software, but her frequency of CCTV use needs to be assessed. If a mental health screener is used, then the test administrator needs to ask her how she wants to read the test and the administrator needs to be ready to act as a reader or serve as a scribe. The second domain that always needs to be considered when assessing a person who has vision loss pertains to orientation and mobility (O & M). This domain involves assessing her ability in orienting herself to a building, route, or transportation from one place to the next. The following are some important questions for the assessment professional to ask: How well does she use the cane? Did an O & M instructor help teach her, or did she learn on her own? Some people with vision loss prefer to use

a guide dog, though less than two percent actually do (Guiding Eyes for the Blind, 2018). Another important element of your evaluation of Twyla may be to determine how she learned to use the public transportation system. Also, her transition from a sighted child to a legally blind adult should be assessed further.

Persons who are Deaf-Blind

About the population

Deaf-blindness is a low incidence and very heterogeneous population. The Individuals with Disabilities Education Act (IDEA, 2018) , states

Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness. (c 2)

Harrington (2004) noted that the number of persons who are deaf-blind in the US is an “especially difficult number to find” (para 1). The National Consortium on Deaf-Blindness (2016) reports there are about 10,000 children (birth to age 22) who are deaf-blind. Regarding adults, Watson and Taff-Watson (1993) estimated there are approximately 35,000 to 40,000 experiencing the condition. The largest group of people with deaf-blindness is over 55 years due to age-related hearing loss as well as vision impairments in the form of cataracts, glaucoma, and macular degeneration. Many of these people do not consider themselves as deaf-blind. The most common genetic cause of deaf-blindness is Usher syndrome, which has different levels of hearing loss combined with progressive vision loss. Communication varies from speech to tactile ASL. People who are deaf-blind use various types of AT, such as screen-reading software combined with refreshable Braille cells that correspond to a line of text on the computer screen.

Case

Chetan “Hawk” Smith (divorced, 40-year-old, Native American) currently lives alone in Tucson, AZ. He lost his hearing due to chronic ear infections as a child and has a severe loss in both ears. Hearing aids help with understanding some speech and provide environmental awareness. His preferred mode of communication is to talk and use his residual hearing with speech reading. He has brittle type 1 diabetes that has caused him to have right-eye blindness (no light perception) and his left eye is corrected to 20/200. Visually, he functions quite well as he performs most of his own activities of daily living such as shopping, cooking, and doing laundry. He has family who help as needed. He attended public high school where he received speech therapy and access to a resource room through IEP services. To help support his family, he dropped out of school in the 11th grade. He worked as a car and truck detailer for several car dealers. For the last 10 years, he worked for a company that sold used automobiles. He had to discontinue working about a year ago due to his rapid vision loss. He cannot return to car detailing because of his vision loss. Now that his vision is stable, he wants to return to work. Therefore, he has come to you for help in choosing a career.

Your course of action

After a thorough review of his medical records to determine the stability of his vision and diabetes, you conduct an in-depth interview about his general and job-related communication. In the interview, you ask him how he manages his medical care, activities of daily living, and mobility needs. You ask him to describe his peak highs and lows in his working life and you identify his interests and values from these statements. A transferable skills analysis may be used to help identify jobs that are a fit

with his present skills, or jobs of interest that may require additional training. Once you identify a possible career area, you conduct an on-the-job tryout to allow for a hands-on experience. Because of his recent vision loss, you may partner with an orientation and mobility (O & M) instructor to evaluate his ability to safely transport himself around public and private spaces. In addition, a rehabilitation teacher for the blind (RTB) can help to evaluate how he manages activities of his day-to-day personal life (e.g., matching his clothes, labeling food, managing time). Depending on the nature of his job choice, an AT evaluation may be needed to determine the best way to increase his level of independence.

Points to consider

An assessment with a person who is deaf-blind needs to consider the communication issues arising from the deafness as well as the communication issues posed by the blindness. Mobility issues stemming from his blindness also need to be addressed. Hawk's deaf-blindness is representative of individuals who are hard of hearing and have low vision. There are many other possible combinations of sensory impairment, such as totally deaf and totally blind, late deafened, and blind (or low vision), and hard of hearing and blind. Hawk uses speechreading and amplified hearing devices for communication. Other people who are deaf-blind may use ASL, tactile or hand-on-hand signing, fingerspelling, or print in palm. Because of Hawk's ethnicity, disability, and educational level, most paper-pencil tests are likely inappropriate. The use of qualitative techniques such as a life career assessment interview or lifeline tool may be helpful (Hays, 2017). He appears to be successful with his day-to-day living skills, but for other persons, an ecological or holistic evaluation may be necessary. Some individuals who are deaf-blind use a support-service provider (SSP) on a daily basis to provide "visual and environmental information, sighted guide services, and communication accessibility" (American Association for the DeafBlind [AADB], 2011, para 1). Due to the specialized skills needed to successfully evaluate the abilities of a person who is deaf-blind, a partnership with other professionals is in order. You can obtain technical assistance and advice from the regional representative of the Helen Keller National Center for Deaf-Blind Youth and Adults (HKNC; <https://www.helenkeller.org/hknc/contact-hknc>).

Environmental Factors

Homeless

About the Population

The U.S. Department of Housing and Urban Development (HUD) asserts that those qualifying as homeless are individuals who live in emergency shelters, transitional housing, or "places not meant for human habitation, such as cars, parks, sidewalks, and abandoned buildings" (Supportive Housing Program, 2018, para. 2). Though generally underserved by human service organizations, people who are homeless need a variety of health- and employment-related services, as they are prone to numerous dangers and risk factors. More specifically, the homeless population is at a heightened risk for infectious diseases, severe hunger, unwarranted violence from strangers, substance abuse, psychological concerns (e.g., depression), and oral health problems such as tooth loss (National Health Care for the Homeless Council [NHCHC], 2019). Though nationwide estimates of the homeless population vary, the results from HUD's 2019 point-in-time (PIT) count suggest there are more than 550,000 people in a given night who fit the definition of being homeless (HUD, 2020).

Along with the PIT count of the number of homeless individuals, demographic data indicates that a majority are over 24 years of age and are mostly males (Homelessness Data Exchange, 2018). In terms of race, the observed homeless population from the PIT count was primarily comprised

of Whites (47%) and Blacks (41%). Also, military veterans represented a disproportionately large number of those counted among the homeless (more than 40,000).

The root or cause of homelessness is believed to be complex and multifaceted (Belcher & Deforge, 2012). Homelessness is not produced by a lone personal characteristic (e.g., mental wellbeing, physical health), nor is it caused by a single environmental condition (e.g., economy, legislation). Instead, homelessness results from a multitude of personal and environment factors and interactions. With that said, there are two especially potent predictors for experiencing homelessness. These two factors are mental illness and substance use disorder (SUD). Research suggests that nearly half of all individuals who experience homelessness have a mental illness, SUD, or are dually diagnosed (SAMHSA, 2011). These mental health conditions must be considered in order to select appropriate instruments, techniques, or strategies. Assessment professionals should consider the history and stability of the person's impairment, as well as the associating behavioral or psychological manifestations. Also, assessment professionals should maintain current knowledge on effective treatment regimens available for such health conditions.

Case

Jackie Lee (37-year-old, single, African American female) lives homeless in Washington D.C. Jackie has been estranged from family members and friends after joining the army and serving active duty overseas. Since returning from her last deployment, she has become overwhelmed by severe symptoms of Post-Traumatic Stress Disorder (PTSD). As a result of her condition, Jackie was issued an honorable discharge. Prior to joining the military, she worked several part-time jobs in retail while earning an associate degree. After community college, Jackie entered the army and attended a 16-month training program at the Defense Language Institute in San Francisco where she learned to communicate in the Farsi language. Jackie graduated from the program and achieved her goal of becoming an army linguist. Soon thereafter, she was deployed to a combat zone in Afghanistan where she served as an interpreter, conversed with locals, and even questioned detainees. Jackie excelled at her duties. However, she witnessed several gruesome acts of violence that caused her much distress. Upon returning from active duty to civilian life, she began experiencing symptoms of PTSD that only worsened with time. Since discharge, Jackie has struggled with her mental health due to sleep deprivation because of recurrent nightmares. She becomes anxious and confused when in a crowded room or area, and feels her world is dangerous. She has experienced a year-long bout of joblessness, social isolation, and homelessness. Without housing, Jackie sleeps in a nearby shelter when she is able to reserve a bed before the other homeless individuals in the area fill the shelter to capacity. Otherwise, she sleeps in an abandoned building. During daytime hours, Jackie spends much of her time at a public library, where she occupies her time in a quiet corner reading and searching the Internet. At this public library is where you meet Jackie while you are offering a weekly, pro bono vocational outreach program for homeless veterans. Upon finding out about the program, Jackie approaches you and signs up for one-on-one assessment services. She tells you that her primary goal is to find a job so that she can eventually save enough money to "get off the streets" and into her own home

Plan of action

During the sign-up process, you provide Jackie with information about your services and reserve a private room in the library to help maintain confidentiality. She then completes a vocational questionnaire to collect contact information, personal history and current living situation, education, work history, military experience, hobbies, barriers to employment, and other work-relevant details. You notice that Jackie is able to read and complete each of the items without help, that she has exceptional penmanship, is detailed in her written responses, and demonstrates excellent grammar. Upon completing the vocational questionnaire on her own,

you provide Jackie an option to start and complete as much of the assessment process as possible. You make this option available because you understand how quickly life situations can deteriorate or drastically change for members of the homeless population, and you are familiar with the difficulty of maintaining contact when the client is without a phone, physical address, or own means of transportation.

As you expected, Jackie is eager to begin the assessment, so you initially conduct a 30-minute vocational interview. You facilitate the interview by discussing her responses on the vocational questionnaire, which provides you a better understanding of her interests, abilities, values, barriers, and goals. Furthermore, the interview will help you to decide upon the assessment instruments, techniques, or strategies that are most useful for Jackie's situation. During the interview, you learn about her PTSD symptoms and the potential workplace accommodations she may need. As a result of her condition, Jackie desires a work environment that is quiet, without too many people, and in an office-type setting wherein she can face the door while having her back against the wall (she feels safer this way). More specifically, Jackie's interest is to work as an administrative assistant. Because of her history as an army linguist, you presume that she has the language skills, organization skills, and orientation to detail that would serve her well as an administrative assistant. However, assuming she still has these skills is problematic, as the severity of her PTSD symptoms (e.g., paranoia, agitation, anxiety, and depression) could interfere with her ability to perform as she once could.

Based on Jackie's background and interests, you arrange for her to meet you at the library to try an on-the-job evaluation as an administrative assistant with a veteran friendly librarian who has helped you in the past. Jackie performs as good as an entry level employee. Despite the promising results, you find that Jackie has significant barriers to work that may hinder her employability, such as her uncontrolled PTSD symptoms, lack of transportation, and limited support network. Therefore, you recommend that Jackie get involved with the local Veterans Affairs (VA) office, as the VA could help provide counseling and medication to help with her mental health barriers to employment. In addition, you inform Jackie that the VA has vocational rehabilitation counselors and job placement specialists who are able to assist veterans to obtain employment and receive workplace accommodations. For her transportation issues, you provide Jackie with a list of local resources such as those offered by churches, nonprofit organizations, and government programs for people in economic hardship.

Points to consider

When assessing an individual who is currently experiencing homelessness, the professional needs to review potential skills and current use of auxiliary services that may be available to the individual or family. Assessing people who are homeless often requires multiple resources. People experiencing homelessness may be facing chronic health conditions, history of involvement in the criminal justice system, lack of social support, lack of transportation, and lack of skills associated with independent living (Nelson et al., 2012). A lack in the continuity of services because of frequent relocation may also bring challenges to assessments service provision (Tsai et al., 2011). Again, completing assessments should consider these and other issues that may arise throughout the evaluation process.

In the case of Jackie, she is fortunate to be an honorably discharged veteran and should have access to the VA's myriad of employment- and PTSD-related services. However, not all homeless individuals are veterans. Therefore, awareness of the different services in the person's area is quite helpful. If the person who is homeless seems to have a disability or SUD, which is typical of this population, you may refer the individual to state-federal vocational rehabilitation, which serves the general population of people with disabilities who are in need of employment.

Older Adults

About the population

The BLS defines older workers as those over age 55 and older. Workforce participation by this group has significantly grown since the 1990s (Toossi & Torpay, 2017). By 2026 older workers will comprise about one-quarter of the labor force. The fastest growth is projected in the 75 and older age group and then 65- to 74-year-olds (Lacey et al., 2017). A combination of financial need, as well as a decrease in overall births, has led to a need for the aging worker to remain in the workplace (Hursh et. al., 2006). Rising healthcare costs and the extension of the retirement age to 67 for Social Security benefits has influenced many workers over the age of 65 to continue employment through later years (Heidkamp et al., 2012). Additionally, older workers may have a financial need to work, may enjoy their job (Irby, 2018), be healthier, have a longer life expectancy, be better educated, and have seen changes in their retirement plans that necessitate continuing to work (Toossi & Torpay, 2017). However, as the older workforce increases, so do the challenges these workers face. Displaced older workers are less likely to regain employment within a 12-month period than employees who are younger (Heidkamp et. al., 2012). The Age Discrimination Act of 1967 was enacted to provide protection for older workers against discrimination and unlawful termination (Equal Opportunity Employment Commission, n.d.).

Case

Henry Moss (62, married, Caucasian, male) from Lincoln, NE, has worked as a structural engineer for 33 years with a number of companies. Henry was involved in a workplace accident approximately four years ago in which he sustained a traumatic brain injury. Henry continues to have some short-term memory impairment; however, his physicians are not able to determine whether this is a result of his injury or the natural aging process. Henry is no longer able to complete effectively work duties as an engineer because his work speed has decreased, and his memory impairment limits his retention of new information. As a result, Henry's employer refers him to you to identify other positions within the company that he may be able to perform.

Your course of action

You conduct a one-on-one interview with Henry to identify what he perceives to be his barriers. During this interview, you find that Henry's reported barriers are inconsistent with the report from his employer. While Henry's employer indicates that memory and work speed are lower, Henry feels that he is being compared with the younger workers in the office and that his work speed is not slower. Henry reports that he needs additional training on the new computer system the company has adopted. Henry is suspicious that his employer has referred him not because of performance, but because he makes a significantly larger income than his younger peers and that his employer is looking for ways to "cut costs." You decide to complete a worksite evaluation as well as an interview with his employer. To determine whether Henry's memory and work speed are slower, you conduct aptitude testing. You are able to identify supports to help Henry maintain his current position, and you complete a work adjustment evaluation for 12 weeks to determine whether these accommodations help.

Points to consider

Older workers are more likely to acquire new disabilities and chronic illnesses as they age, which complicates their ability to remain in the workforce. Major mental health disorders that older workers might develop include depression, anxiety disorders, dementia, delirium and psychosis, and

substance misuse and abuse (Miller & Reid, 2009). Counseling, cognitive rehabilitation, or medication may be required to treat these issues. Older workers may also face secondary disability issues related to age, such as chronic hypertension, vision, or hearing loss (Heidkamp et al., 2012). Because of vision and hearing loss, you should ask older workers if they can hear you and, if necessary, read documents presented to them (Miller & Reid, 2009). If visual limitations are present, provide larger print documents and increase the font size on their computers. Older workers may also acquire new disabilities, or disabilities related to employment, such as chronic back pain. Depending on the worker's job field, the natural aging process can limit the physical ability of an older worker to continue in the same employment. An older construction worker, for instance, may find they are no longer able to work in the construction field due to an inability to remain in higher temperatures for longer periods of time. The increased focus on technology development in recent years creates a disadvantage for the older worker who has not had the experience or access to technology across their lifespan. Processing speed, working memory, and long-term memory decline with age (Park et al., 2002). These reductions in memory can impact the time it takes to learn new skills, such as advancing technology skills or training for new positions (Lee, 2009). Providing written, step-by-step instructions may facilitate the worker learning these new skills. Additional time for the assessment may also be in order.

Older workers may also have more of a need for accommodations due to their functional limitations but may be less likely to request these accommodations. This was true for workers with less education, those employed in nonprofessional or managerial jobs, individuals employed less than three years, workers at smaller companies, and employees with psychiatric or multiple disabilities (Dong, 2018). Further, older workers who did not have a disability, but needed an accommodation, were less likely to request accommodations because they did not have a disability. Older workers requesting and receiving accommodations tended to see themselves as having more workplace supports, a familiarity with the Americans with Disabilities Act, and an awareness of accommodations. Older workers who did not request or receive accommodations would benefit from this knowledge and training or from an advocate to facilitate their receipt of accommodations (Dong, 2018).

Additionally, stereotypes about older workers influence income, advancement, and retention (Ng & Feldman, 2012). Many employers and younger coworkers perceive older workers as being less motivated to work, less willing to be trained, having more costly health issues, being less productive, and having more issues with family-work life balance (Ng & Feldman, 2012). Perceptions and physical limitations do not diminish the need or the desire to continue working for the older worker. The extension of the retirement age for Social Security, an economic recession, and an aging global population mean that many workers will continue working into their 70s. For some older workers there is a desire to keep working, but for many older workers there is an economic necessity due to depleted funds and loss of assets (Heidkamp et al., 2012).

Miller and Reid (2009) have suggested some strategies to facilitate treatment. They recommend building rapport and carefully reviewing your role in the older worker's rehabilitation, since these clients may be uncomfortable needing services. Further, because older workers tend to report physical rather than psychosocial complaints, ask specific mental health questions. Also ask clients to provide a list of all medications, and contact the older workers treating physician or a pharmacist if you have concerns about drug interactions or medication misuse or abuse.

Speakers of Other Languages

About the population

Speakers of other languages are people whose native language is not English. Approximately 66.6 million (21.8%) of the U.S. population over the age of five speaks a language other than English in their homes, and 26 million of these people report that they do not speak English very well (American Community Survey [ACS], 2015). The 2009-2013 ACS classified all languages reported by the group sampled. There were 380 possible languages or language groups. Due to immigration, refugees, or undocumented residents, the list may not represent all possible languages. The most dominant languages spoken are Spanish and Spanish Creole, with 37 million people speaking these languages (ACS, 2015). Because English is the predominant language in the U.S., speakers of other languages need to learn English to assimilate into the U.S. culture. Linguists (Veltman, 1983, 1988; Fishman, 1966, 1988 as cited in Portes & Hao, 2002) have described a three-generation process for assimilation. The first generation primarily speaks their native language and learns sufficient English to survive at work and in the community. In contrast, the second generation is bilingual. People from the second generation learn English to function in their environment but use their native language at home to communicate with their parents. By the third generation, English is the dominant language, and the person's knowledge of their native language may become lost. This three-generation process varies by client and may be dependent upon whether clients live in a community where their native language is spoken or live in a community where English is the dominant language. You should ask rather than make assumptions about the dominant language spoken by clients.

Case

Marisa Lopez (28, married, female) moved to the U.S. from El Salvador approximately five years ago. She has settled in El Cajon, CA. She was in a car accident nearly two years ago and she sustained a back injury, resulting in chronic pain. The chronic pain has limited her mobility, making it difficult to complete her duties in the small grocery market she and her husband own. Their market is in a primarily Spanish-speaking area, and as a result, she speaks English at a basic level (for information on language levels see <https://tracktest.eu/english-levels-cefr/>). She is coming to you for an assessment to determine possible accommodations to assist in completing her employment duties.

Your course of action

You meet with Marisa with a qualified interpreter to complete a face-to-face interview. Through this interview, you gain information about her essential job skills, as well as barriers to completing these tasks. You decide to complete a workplace evaluation by visiting her jobsite and observe Marisa completing her tasks in her workspace. You complete a job analysis and visit the Job Accommodation Network (JAN; <http://askjan.org/>) to determine possible accommodations available to Marisa. Based on the JAN recommendations, Marisa's workplace may need to be modified to facilitate her return to work. To confirm that Marisa's accommodations are allowing her to return successfully to work, you will follow up with Marisa after her return to work in order to evaluate the success of her placement.

Points to consider

With the increase in refugees coming to the U.S., you need to be aware of their healthcare needs and how to communicate effectively with refugees and speakers of other languages. One source about cultural and healthcare issues of immigrants and refugees is EthnoMed (<https://ethnomed.org/>). The Office of Minority Health Resource Center (<https://minorityhealth.hhs.gov/>) is another resource with health information available for African Americans, American Indians and Alaska Natives, Asian Americans, Hispanics, Native Hawaiians, and Pacific Islanders.

When interacting with speakers of other languages, you should be aware of the influence that your own ethnic and cultural group, family values, and experiences have

on your communication and interactions with clients. This requires you to listen carefully to the client or interpreter and to communicate thoughtfully with both (Summers, 2016). When using an interpreter, you should look at the client and not their interpreter. You may also want to explore with the client their ethnic and cultural background. Researching the client's background prior to the initial interaction will give you a point of reference; however, you should avoid making broad generalizations about clients and their ethnic and culture background without first clarifying clients' perspectives (Summers, 2016). Further, clients are influenced by acculturation (i.e., traits borrowed from another culture) and assimilation (i.e., becoming part of the culture). These factors should be kept in mind when interacting with clients.

You also may benefit from learning if a client is from an individualistic (e.g., United States, Canada) or a collectivist (e.g., Columbia, Japan, Saudi Arabia) culture. Individualistic cultures focus on the individual and their family, are direct and explicit when they communicate, and use physical barriers (e.g., doors and walls) for privacy. Members of individualistic cultures are more likely to self-disclose. In contrast, collectivist cultures look out for members of their group, are indirect and implicit in their communication, use psychological barriers (e.g., being soft spoken) for privacy, and may not self-disclose in order to protect access to others (Summers, 2016).

A major challenge when using ability tests developed for one culture with members of another culture is that assumptions made about values, knowledge, and communication when creating the tests may differ when these tests are taken by persons of a different culture. Ideally, when tests are created, a bicultural or multicultural team should work together. Another recommendation is for the test administrator to develop a personal relationship with the test taker outside the testing environment. If current ability tests that are not culture-specific are the only options, then the evaluator should interpret the results with knowledge of the culture (Greenfield, 1997). Standardized achievement tests for domains such as reading, science, and math may be particularly problematic for speakers of other languages. Abedi (2002) noted these tests "are administered in English and normed on native English-speaking tests populations, they may inadvertently function as English language proficiency tests" (p. 232). He also suggested that non-native English speakers should be part of the norming group to make the test results useable. Elbulok-Charcape et al. (2014) surveyed neuropsychologists about the assessment of ethnic minorities and suggested that a "lack of appropriate norms, tests, and referral sources are perceived as the greatest challenges" (p. 353). Further, multicultural training is needed as ethnic minorities are underrepresented in neuropsychology research, and some neuropsychologist's complete assessments in foreign languages despite limited proficiency in the language. This phenomenon is likely true of other professions.

Substance Use

About the population

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; 2013) ceases to use the labels *substance use* and *substance dependence*. Instead, the DSM-5 references *substance use disorders* (SUD). The level of SUD severity (i.e., mild, moderate, severe) is based on the number of diagnostic criteria the person meets. A SUD is likely present when an individual experiences significant clinical and functional impairment caused by the recurrent use of drugs, alcohol, or both (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). In addition to health problems and potential onset of disability, such impairments may lead to an inability to execute the responsibilities in daily living domains (e.g., work, school, home). Determining a diagnosis for SUD requires evidence of the person having impaired control, social withdrawal, and risky or dangerous use behaviors. The presence of SUD or alcohol related problems are often dually diagnosed with a mental illness (National Alliance on Mental Illness, 2013). Adding to the complexity

of their psychosocial situation, individuals experiencing SUD and dependence issues comprise a large portion of the incarcerated population at approximately 65% (National Center on Addiction and Substance Abuse, 2010).

In 2014, more than 21 million people above the age of 12 exhibited SUD (e.g., alcohol use disorder, illicit drug use disorder), equating to an estimated 8.1% of the U.S. population (SAMHSA, 2015). Additionally, of those in 2012 with SUD who were considered to be in need of treatment, only 1% actually received services (SAMHSA, 2012). Drug overdose, a complication of SUDs, is considered a nationwide epidemic as it is the leading cause of accidental deaths among Americans (more than 50 thousand people died in 2015; American Society of Addiction Medicine, 2016). At the forefront of this epidemic is opioid addiction to prescription painkillers and heroine. According to the CDC (2020a), more than 40 individuals die each day in the U.S. from prescription painkiller overdose. Additionally, more than 4 million people per month misuse prescription painkillers for nonmedical purposes, and nearly 2 million people fit diagnostic criteria for SUD from painkillers (SAMHSA, 2016).

In addition to being a life-threatening condition, SUD has a tremendous monetary cost to society. According to the Office of Drug Control Policy (2003), drug addiction costs \$130 billion to the U.S. economy each year, of which \$100 million result from productivity losses in the workplace. More specifically, individuals with SUD and addiction issues are prone to high employment turnover, excessive absenteeism, diminished work productivity, and disciplinary problems (Hubbard et al., 1997). Oftentimes, individuals with SUD lose their jobs as a consequence of these problems, which can exacerbate the SUD issues.

People with SUD who enter drug treatment programs are commonly referred to vocational assessment and other employment-related services (Sligar & Toriello, 2007). Obtaining employment during addiction rehabilitation increases the likelihood of treatment success, completion, and sustained recovery. Furthermore, employment can help reinforce sustained recovery by promoting overall health, improved optimism about life, increased self-esteem, more satisfying relationships, and less engagement in criminal activity (Salyers et al., 2004).

Case

James Whittaker, Jr. (25-year-old, single Caucasian male) is currently unemployed and living at home with his sister and niece in Detroit, Michigan. James was employed since high school as an assembly line worker at a manufacturing plant. Soon after becoming hired, James was in an automobile collision that resulted in an injury to his neck causing chronic and persistent pain. He continued working in spite of the neck injury for seven years, initially controlling the pain with prescription painkillers from his doctor. Over time, James developed an addiction to painkillers, and he began buying them illegally. He was self-medicating even after the pain had ended. The addiction led to negative workplace consequences, and he was terminated from the only job he ever had. James described this event as the "wakeup call" that led him to enter a drug treatment program. He participated in intensive outpatient treatment for three months. The treatment program referred James to you for vocational assessment services to identify a fitting occupation. After three months of recovery, James is currently sober and is motivated to find a job. However, he no longer wants to work in a manufacturing plant as he did previously. In addition, James is considering enrolling in a vocational or trade school but is unsure about his desired career path.

Your course of action

James has only recent psychological and medical evaluations. You review his records, which contain information on cognitive ability (IQ), personal background, and his diagnosis of SUD (in recovery).

After reviewing the records, you meet with James and conduct a face-to-face interview that helps to assess his employability, develop an employment goal, and establish a plan. In addition to the interview, you administer a variety of testing instruments to assess multiple domains (e.g., achievement, aptitudes, interests, values, barriers). For behavioral observations, you have James undergo a situational assessment with a local employer, which helps you determine his personal and social supports and examine his interactions with potential coworkers and supervisors. You also want to observe his level of motivation, willingness to follow instructions, and how he manages stressful work-related situations.

From the initial face-to-face interview, you learn that James has a short-term goal of quickly finding a job that matches his interests and has a possible long-term goal of attending post-secondary training such as college or trade school to pursue a stable career with opportunities for advancement. Based on the earlier psychological evaluation and his performance on the achievement and aptitude tests, you conclude that James has the capacity to succeed in a four-year college or trade school. From the vocational interest and values inventories, you are able to provide James with five occupations that would best meet his short-term goal of employment, as well as five areas of training that are congruent with his long-term goals. Other than the potential for drug relapse, James has few barriers to employment. Therefore, you recommend that James remain engaged in outpatient treatment and concurrent support group services.

Points to consider

First, assessing individuals with SUD requires viewing the person individually, within his or her own context. No two people with SUD are exactly alike. Some individuals may experience all of the previously mentioned consequences of drug use along with a co-morbid mental illness while others may be without significant issues that are secondary to SUD. In either scenario, the assessment professional should be aware of how long the client has experienced substance use. Longer periods of use can negatively influence the person's language processing ability and psychomotor skills, resulting in suboptimal testing performance (Latvala et al., 2009). Long-term substance use has been associated with challenges in memory, attention, executive functioning, and reasoning (Schrimsher & Parker, 2007). However, these deficits can improve with treatment participation and compliance.

In addition to duration of use and functional limitation, the person's stage of recovery must be considered throughout the assessment process. Because lingering effects of chronic drug use are often felt in the early recovery stage, the person undergoing assessment may underperform, yielding results that fail to reflect the person's true potential (see Sligar et al., 2010). Withdrawal symptoms impair reasoning skills, concentration, memory, and learning. If withdrawal symptoms endure longer than what is considered normal, the person might have post-acute withdrawal syndrome (PAWS) and exhibit mood instability, irritability, and decreased energy. If PAWS symptoms negatively influence the person's performance on the assessment, the results should not be used, and assessment should be rescheduled for a later date. However, duration of withdrawal symptoms is difficult to predict as individuals recover at varying rates.

Transition-Aged Students

About the population

Mandated by the IDEA of 1990 and its subsequent reauthorizations, public schools must make transition services available to students with disabilities. Transition services, more specifically, are defined as "a coordinated set of activities for a child with a disability that... is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities," (IDEA, 2018). Such *post-school activities* may relate

to education (i.e., postsecondary, vocational, continuing), employment, independent living, adult services, or community participation. As mandated by IDEA, transition services must also be individualized in addressing the student's particular needs, interests, strengths, and preferences. Such services that are provided to a student are identified and listed in the student's Individualized Education Program (IEP).

The IEP is a document that is developed with, and for, eligible students with disabilities. An effective IEP with appropriate services requires a collaborative effort on behalf of teachers, family members, and other service professionals who can assist students with disabilities in transitioning to adult life. Often times, professionals from multiple disciplines are invited to attend the student's biannual IEP meetings to help the student (as well as parents or guardians) identify services that are optimal for post-secondary goal preparation.

According to the U.S. Department of Education, nearly six million students between the ages of 6 and 21 years received special education services during 2014 (U.S. Department of Education, 2016). Regarding the most common types of disabilities observed among students with IEPs, most prevalent are specific learning disabilities (39.8%), followed by speech or language impairments (18.1%), intellectual disabilities (7.3%), and mental illness (6.3%).

The next case study pertains to a student with an intellectual disability (ID). As a diagnosed condition, ID pertains to a below-average cognitive ability accompanied by three characteristics: (1) an intelligent quotient (IQ) between or below 70-75 (an IQ of 100 is considered average intelligence), (2) presence of significant limitations in adaptive behavior (e.g., socializing, self-care, communication), and (3) an onset of the disability occurring prior to age 18 (DSM-5, 2013). In terms of post-secondary opportunities, college is typically an unrealistic possibility. However, people with ID are able to flourish in other post-secondary activities, including employment, independent living, and different activities of community participation.

Case

Kendra Bentley (17-year-old, single, African American, female) lives in Section 8 housing with her parents in Opelika, AL. and is a junior at the local high school. At least half of her class days are spent in special education classrooms, as she is diagnosed with an ID that impairs her ability to process and apply information like her peers. According to recent testing that was facilitated by the school's psychometrician, Kendra exhibits an IQ of 65, which is within the range of a mild ID (an IQ of 55-70 is considered *Mild*; 40-55 is *Moderate*; 25-40 is *Severe*; less than 25 is *Profound*). The diagnosis of mild ID is Kendra's only disability, as she is otherwise mentally, physically, and psychologically healthy.

Regarding hobbies, Kendra enjoys helping with chores at home, such as preparing simple meals (e.g., sandwiches), doing laundry, and raking yard leaves. In addition to chores, she enjoys singing, dancing, arts and crafts, watching movies, and spending time with friends and family. When asked what she would like to do after high school, Kendra said she would like to obtain a job so that she can eventually buy a house and start a family. Kendra is highly motivated to go to work and is confident in her abilities. Similarly, the special education teacher believes that Kendra, with family support, could obtain and maintain employment. Unfortunately, however, Kendra's parents are skeptical of her employment prospects and doubt that an employer would hire or retain her. Furthermore, the parents are fearful that if Kendra goes to work, she will lose her Supplemental Security Income (SSI) benefits.

Kendra's SSI benefits (\$655 per month) are used to help the parents pay for the family's rent, groceries, and clothing. Also, SSI provides Kendra with health insurance that she would otherwise not

have. Despite these issues, the parents remain somewhat open to helping Kendra obtain gainful employment as long as the expert opinion of a vocational evaluator suggests that she would be successful in the world of work. Therefore, to help determine her job potential, Kendra, the special education teacher, and the parents invite you to attend IEP meetings at the school and to potentially facilitate an ongoing vocational assessment. Prior to attending the first meeting, you gain permission to review Kendra's IEP documents, which contain information about Kendra's diagnosis, school performance, strengths, and weaknesses.

Plan of action

You join Kendra's first junior-year IEP meeting, which is also attended by Kendra, her social worker, parents, and the special education teacher. The first thing you notice when introducing yourself to Kendra is that she is polite, friendly, sociable, and alert of her situation. Prior to the meeting, you begin establishing rapport with everyone at the table in order to begin fostering a sense of teamwork for Kendra. As the IEP meeting commences, you listen intently and begin to understand Kendra's post-secondary goal of employment and the teacher's confidence in her ability to achieve this goal. However, you also hear the parents' SSI concerns and doubts in Kendra's ability to work. When the meeting shifts focus to matters of vocational assessment, you discuss the services you provide and how you can help. You direct most of your attention to Kendra, as she is the prospective client and not the others.

Mindful of the parents' SSI concerns, you then inform the parents that individuals with SSI benefits are indeed able to work and earn up to a certain dollar amount per month without losing benefits (for more information see: <https://www.ssa.gov/oact/cola/incomexcluded.html>). In addition, you provide the parents with contact information of a benefits counselor who is able to provide more details about Kendra's SSI situation should she gain employment. Because you also understand that the parents have significant decision-making power over Kendra's life, you emphasize the necessity of Kendra having a strong support network if employment does indeed become the focus after high school, as she will likely need help (e.g., transportation to and from work). Though Kendra's parents are still unsure about allowing her to work, they agree with Kendra that she should at least undergo a vocational assessment, so you schedule an appointment to meet with Kendra at the school on a later date.

Because Kendra's school records indicated limited reading abilities, you decide to forgo paper-pencil testing that might only frustrate Kendra and begin focusing on a vocational interview. During the interview, you ask Kendra about her interests, strengths, abilities, goals, hobbies, and needs. To ensure you receive valid information, you consistently double-check her understanding and speak using sentences that are short, simple, and not abstract. In response, Kendra is able to provide you with useful information. However, in terms of work interests, she is only able to name places where she would like to work (as opposed to specific jobs), stating that she would like to be employed at a grocery or retail store. To gather additional information about her work interests, you administer a picture-based interest inventory that is useful among populations with limited reading skills. In addition to interests, you decide that you need more information about her skills, strengths, and ability to adapt to new people and environments. Once again, paper-pencil testing is unlikely to capture her true potential in these areas, so you determine that an ecological or situational assessment is in order. Consequently, you use your employer contacts in the community to arrange an ecological assessment at both a nearby grocery store as well as at a local pet store. Results from this assessment strategy will help you determine Kendra's level of employability, and whether she can work independently or if she would benefit from supported employment services (e.g., job coach).

Points to consider

The key to effective transition assessment includes collaboration and cooperation. Family members, teachers, counselors, and others (e.g., occupational therapists, case workers) can potentially provide valuable insight into the skills and abilities of students in transition, thus information from these sources should be solicited by the assessment professional in addition to the information you glean from the student. Furthermore, a strong effort should be made to identify and assess the student's social support network, as this is a strong predictor of workplace success among younger adults with disabilities. In addition to being aware of the student's support network, the assessment professional needs to be aware of the local labor market. More specifically, the assessment professional should know about the types of jobs within the local community that are available and realistic for transition-aged students with disabilities. Such knowledge helps improve the effectiveness of vocational assessment and enhances service provision.

Conclusion

This article focused on eight different special populations that have unique characteristics and needs. At the same time, each group is representative of other special populations because you must consider where the assessment is taking place and the cultural influences, educational levels, and linguistic proficiencies of the individual. Space does not permit a review of persons with other disabilities (e.g., autism, cerebral palsy, epilepsy, mental illness, spinal cord injury) or persons affected by environmental factors such as refugees, immigrants, or ethnic and racial minorities. Best practices for all special populations include a thorough review of available medical, educational, vocational, social, and technology used (including AT). Then an individualized assessment is provided that includes AT and carefully chosen instruments or techniques with accommodations or modifications. You must also become familiar with the client's worldview and unique preferences and career aspirations.

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Executive Functions and the Importance of Meaningful, Age-appropriate Career Assessment and Vocational Evaluation

Bridget Green, Cliff Oliech, and Pamela J. Leconte

Abstract

This paper outlines the benefits of ongoing and multiple forms of vocational assessment services for adolescents. The purpose is to discuss adolescent brain development and the roles executive functioning play in vocational assessments, especially vocational evaluation. The authors discuss the three levels of vocational assessment, recommend that vocational evaluators assess within work or learning environments, and provide recommendations and considerations for vocational evaluators as they observe manifestations of executive functioning. The authors make a case for vocational evaluators to understand the complex changes in the adolescent brain and to use current research that informs their practices and vocational evaluation recommendations to ensure that they are providing meaningful, career-focused assessment.

Keywords: adolescents; disability; executive functions; vocational evaluation

Introduction

Various types of age-appropriate assessments, services, and approaches can inform an individual's career development and vocational future. This is as true for adolescents as it is for adults. However, because of a second sensitive period of brain development during age 13 through mid-twenties (Giedd, 2015), professionals providing assessment services can expect that adolescents may need ongoing and multiple types of assessment services as they progress through this major development period. To date, few authors have addressed the differing needs between adolescents and adults regarding assessment of career development and vocational futures, particularly pertaining to how brain development may affect these. The term "age-appropriate" (20 U.S.C. 1416(a)(3)(B)), which is used to describe assessment required in the Individuals with Disabilities Education Act (IDEA) of 2004, takes on new meaning when considering assessment services for adolescents. Age-appropriate may refer to neurological as well as chronological age. The IDEA does not address the neurological or chronological distinction, but practitioners observe these differences daily through delivery of individualized assessments. The purposes of this paper are three-fold. First, the authors will present a brief status and description of vocational assessment, specifically reviewing the three vocational assessment levels. Second, using various forms of assessment as the foundation to provide services to

individuals with disabilities, the authors will discuss adolescent brain development and the roles of executive functions in vocational and career assessment services. Finally, the authors will provide recommendations and considerations for the field of vocational evaluation and career development.

Status of Assessment for Adolescents with Disabilities

Efforts to provide meaningful career development for youth, especially for those with disabilities, have fallen short in the last century and thus far in the early 21st (Carter et al., 2010; Oertle & O’Leary, 2017; Savickas, 2012; Wehmeyer et al., 2019). In fact, Oertle and O’Leary (2017) analyzed 2003 data from the National Longitudinal Transition Study-2 (NLTS-2) and found that students in special education received inadequate career development services. The researchers identified that only 61.4% had any career skill assessment, 58.1% received career counseling, and far lower percentages had job search instruction, job preparedness training, job shadowing experience, technology preparation, and job development assistance. Only 4.1% participated in internships and apprenticeships. These data are disheartening, considering that research shows students who engage in work (e.g., internships, apprenticeships, volunteer or paid competitive employment during high school) are more likely to obtain employment and earn higher wages after high school (Cobb & Alwell, 2009; Luecking & Fabian, 2000; Oertle & O’Leary, 2017).

American education often skips career development but pushes adolescents to leap into career decision making and vocational planning without providing opportunities to explore potential, lifelong employment contexts. For example, many school-aged individuals are forced to commit to four-year high school plans (college versus career courses, under the guise of becoming college or career ready) while in middle school. The absence of career development is viewed as a crisis (Savickas, 2012; Wehmeyer et al., 2019), and is emblematic of career development for all individuals. It is worse for people with disabilities (Bassett & Kochhar-Bryant, 2006; Wehmeyer et al., 2019). The lack of career exploration and development has a cascading, negative effect for adolescents making successful transitions from school to adult living or successful career transitions throughout their lives. Under or unemployment are often results of inadequate career development, especially for those with disabilities (Luecking & Fabian, 2000; Oertle & O’Leary, 2017). These circumstances, in turn, often lead to lives of poverty (Anderson et al., 2017; Nye-Lengerman & Nord, 2016; Oertle & O’Leary, 2017).

For some adolescents, there is minimal, if any, time during their middle school and high school years to learn about, explore, or experience careers that will help them formulate vocational goals. Again, this is true especially for adolescents with disabilities (Bassett & Kochhar-Bryant, 2006; Oertle & O’Leary, 2017). For the few adolescents who have opportunities to participate in transition, career, and vocational assessment, these, albeit limited, services may provide the only career-related information they receive during their school careers. If they are fortunate enough to participate in work-based assessment, the most authentic form, their neurological responses will be informative to them and can be observed by assessors. Authentic assessment methods are actually meaningful learning processes (Fiske & Todd, 1994). They serve as positive interventions in the overall development of adolescents as they try to envision themselves in careers, work, and functioning in their communities. Again, too few of these assessment services (e.g., job shadowing and paid internships) are available to adolescents and notably, these services have diminished as federal priorities changed. The need persists whether policies support the services or not.

Transition, Career, and Vocational Assessment

Assessment, or learning, within the contexts of actual work environments engage adolescents in related tasks and can ignite or reinforce their career and vocational interests and motivation. This is partly because their neurological development may be ready to make more meaning of such

environments, understanding their emerging interests, as well as envisioning themselves working within them (Jensen & Nutt, 2015). This section will define differences between transition, career and vocational assessment. The latter will be divided further to describe three levels of vocational assessment. The authors will define and focus on the third level of vocational assessment, which is referred to as vocational evaluation or comprehensive vocational assessment.

Broadly, transition assessment encompasses all life roles and the supports needed before, during, and after transition to adult life; it serves as an umbrella term under which career and vocational assessment and vocational evaluation are included. Specifically, “transition assessment is an ongoing process of collecting information” about youths’ “strengths, needs, preferences, and interests as they relate to the demands of current and future living, learning and working environments” (Sitlington et al., 2007, pp. 2-3). Transition assessment uses multiple sources and approaches across multiple delivery systems (Neubert & Leconte, 2013). All stakeholders participate in the processes of information-gathering and decision-making based on the data gathered, but adolescents are always at the center of the ongoing process. Ideally, adolescents are the drivers for the whole assessment process.

Assessment for successful transitioning is holistic, in that data are collected within multiple domains (Leconte, 2011; Neubert & Leconte, 2013), such as physical and mental or behavioral health, home and family, personal responsibility and relationships, community participation, leisure and recreation, and self-determination and advocacy (Cronin & Patton, 1993). Various transition assessment instruments have been developed for these domains appropriate for adolescents with different levels of cognitive abilities, primarily in the form of questionnaires and interviews. The Zarrow Center at the University of Oklahoma serves as a resource for free and public domain assessment instruments in a variety of domains (e.g., self-determination). Also, the National Technical Assistance Center on Transition: The Collaborative (NTACT-C) is a national resource for transition information and assessment resources.

Similar to transition assessment and subsumed under its own “umbrella” career assessment is an overarching concept which relates to life-long career development. It is an ongoing process which affects all life roles, predominantly for learning and working. Because contemporary work and workplaces are ever-changing and lack stability within a global marketplace (Savickas, 2012, p. 13), career assessment must necessarily address adaptability, flexibility, and ability to move between different career and work contexts, or jobs. These are fundamental aspects of career assessment. The National Career Development and Association (NCDA) is a national resource for practitioners regarding career assessment services and resources.

Differing from transition and career assessment, vocational assessment and evaluation are more focused on the role of the potential worker and employment. Vocational assessment and evaluation are components of the broader services just described; they play a vital role in transition, career, and other services (Leconte, 1999). Ideally, post-secondary education, employment, and independent living goals should be guided by transition and career assessment services with data provided by multiple education and rehabilitation personnel (Neubert, 2003; Rowe et al., 2015). Although vocational assessment and evaluation are accessible to some adolescents in public schools, they are often more available to those with disabilities who seek services from state vocational rehabilitation systems. This limited availability bolsters the argument for collaboration between special education and rehabilitation systems so that more adolescents can access vocational assessment or evaluation services at critical developmental times in their lives.

Vocational assessment is a process of gathering vocationally relevant information to assist in making vocational decisions. The Glossary of Terminology for Vocational Assessment, Evaluation and Work Adjustment defines (Dowd, 1993) vocational assessment as

a comprehensive process conducted over a period of time, usually involving a multidisciplinary team ... with the purpose of identifying individual characteristics, education, training, and placement needs, serving as the basis for planning an individual's educational program, and which provides the individual with insight into vocational potential (Dahl as cited in Dowd, 1993 p. 29; Leconte, 2019, p. 16).

Using the umbrella model, vocational assessment narrows the focus of assessment even more to the abilities, skills, temperaments, aptitudes, strengths, needs, work values, behaviors, etc. that are needed for actual vocational training and work or employment as well as the supports or accommodations they may need to succeed (Corthell & Griswold, 1987; Leconte & Roebuck, 1984; Thomas, 2020). Vocational assessment services may also address other aspects of one's life such as health, transportation, education, but primarily as they impact vocational aspirations, planning, and implementation (Corthell & Griswold, 1987; Leconte & Roebuck, 1984; Thomas, 2020).

The three levels of vocational assessment are described below. While vocational assessment methods are woven throughout each level, vocational evaluation is the most comprehensive service which uses real or simulated work and is customized for people who face the most daunting vocational barriers. It is still true today as it was when Crow (1975) and Nadolsky (1983) found that vocational evaluation, Level Three, was needed by a smaller percentage of the population. The other two vocational assessment options, Levels One and Two, are sufficient for people who face lesser vocational challenges or those who comprise the general population. These different levels of vocational assessment services are designed to meet the varying needs of individuals.

Three Levels of Vocational Assessment

The three levels of vocational assessment descend from least intensive (Level I) to most intensive services (Level III). Each level should build off data collected in the prior level, but also each level can serve as a stand-alone service. All three levels must be tailored to the specific strengths, needs, goals, and situations of each individual. The levels begin with Level I: Needs Assessment or Screening, and move toward the final and most intensive and comprehensive service which is Level III, also referred to as vocational evaluation. Vocational evaluation differs from the other levels of vocational assessment as it is time-limited and may occur only once or at most twice in a person's life, whereas Levels One and Two may be ongoing or occur multiple times (Thomas, 1991), especially at transition points such as preparing to leave high school, identifying a major in college, or changing jobs. Each level typically requires an interview, career information, use of informal and formal instruments and techniques, and a written report, or vocational profile, which analyzes, synthesizes, and interprets assessment results. These results, in turn, form the rationale for recommendations for future planning and action.

Level I

The first level of vocational assessment is a needs assessment or screening. The term screening should not be misinterpreted as "screening out" but refers to the process of identifying the strengths, needs, interests, preferences and goals of an individual. Data are collected via an interview, review of background information, limited use of formal or informal testing, and initial exploration of occupational information; the process culminates in decisions for providing additional services (Castiglione et al., 2018; Crow, 1975; Dowd, 1993; McCarthy, 2020). Many adolescents benefit from Level I vocational assessment and may not need more appraisal if they have clear goals and plans for education, training, and/or employment. During this level of assessment, adolescents may simply need to explore vocations via the O*NET or other occupational databases (e.g., the Canadian National Occupational Classification system) and analyze information gleaned from various assessment

techniques. Assessment instruments and techniques typically used at this level include the aforementioned interviews, review of background information, data from informal instruments (e.g., interest inventories, temperament or values surveys), and informal conversations (Castiglione et al., 2018; McCarthy, 2020). The second vocational assessment level may build off the first level or, again, the screening assessment may be sufficient for most teens to make sound decisions regarding their desired vocational futures.

Level II

Level II, Exploratory, or Clinical Assessments, are provided if questions remain unanswered from participation in Level I or if the evaluator determines the person needs more intensive assessment and exploration. If this occurs, the first level can be skipped to initiate Level II. This Level of vocational assessment, or the intermediate process, may involve a detailed case review, vocational counseling, and/or use of informal surveys and standardized tests (Dowd, 1993); work sampling may also be included. If further information is needed, more intensive services are required, and participants may move to the next level.

Level III

The final or third level of vocational assessment is the most intensive and comprehensive process. It is recommended that Level III be conducted by a trained, certified vocational evaluator. Referral sources and vocational evaluators may confer to determine if Level III services are needed from the beginning. This third level, or vocational evaluation, is an in-depth process that systematically uses either real or simulated work as the focal point for assessment and vocational exploration; the purpose is to assist individuals in vocational development (Crow, 1975; Dowd, 1993; McCarthy, 2020). The vocational evaluation process incorporates medical, psychological, social, vocational, educational, cultural, and economic data (Castiglione et al., 2018; Crow, 1975; Dowd, 1993) as needed to develop viable, future planning.

Vocational evaluation aligns with and is an example of authentic assessment, which allows individuals opportunities to transfer knowledge into the workplace (Herman et al., 1992). Authentic assessment was defined and advocated by educators as an alternative to the testing movement (Fiske & Todd, 1994; Herman et al., 1992) and, as it happens, it serves to support and further define vocational evaluation, which itself was developed as an alternative to testing (Nadolsky, 1983). Vocational evaluation allows people for whom standardized testing is discriminatory to demonstrate their intelligence and abilities by actually performing tasks (e.g., making decisions, problem-solving, creating), usually within real or simulated work contexts. Authentic assessment, such as vocational evaluation, is a process that facilitates appropriate decision-making by giving meaningful feedback for improving learning, performing, and behaving and links educational and vocational options with “real world” performances, requirements, and experiences (Herman et al., 1992). Additionally, it requires participants to actively accomplish complex tasks in natural environments while using prior knowledge, recent learning, and relevant skills to solve realistic, actual problems (Fiske & Todd, 1994). Work performances are not scored as much as they are observed to determine problem-solving ability, approaches to tasks, organization of working, etc.

By assessing one’s ability to perform processes of learning, and application of knowledge in natural environments and situations, it allows adolescents, particularly if they have disabilities, to demonstrate abilities that cannot be captured on standardized tests. As such, authentic assessment is a low risk and low stakes (versus high stakes testing) process that is characterized by having people create, perform, produce or do, where individual performance is the focus (Fiske & Todd, 1994).

To become career-ready today, one must rely on the brain functions of problem-solving, goal setting, decision-making, self-monitoring and regulation, life-long learning, self-awareness and determination, maintaining “soft” or job-keeping skills often within new or different work environments (Morningstar et al., 2017). These skills are often discovered during Level III assessments in authentic or simulated work environments. Adolescents are still developing these abilities and skills; as a result, one-time assessments may capture a moment in time but will not represent evolving capabilities. Therefore, it is equitable and fair to offer assessment services as an ongoing process for adolescents. The following section will discuss adolescent brain development and the need for an ongoing vocational assessment and evaluation.

Vocational Evaluation and Executive Functions

Vocational evaluation has an overarching goal to provide rationale and next steps for planning and preparation in education, training, and entry into a satisfying and satisfactory career or job (Nadolsky, 1981). In fact, Nadolsky articulated it well when he stated (1981) that vocational evaluation assists

individuals in determining whether they are capable of working or of successfully participating in the dynamic process, which occurs between the individual and specific work environments. Rather than observing or measuring individual traits in isolation from the work to be performed, vocational evaluation exposes the individual to a variety of practical, realistic work activities that require an active response to the tools, tasks, and procedures employed in each work situation. When confronted with various work-related situations, individuals must not only possess certain traits, but must actively express their abilities to satisfactorily perform the required tasks and activities. Thus, as individuals participate in vocational evaluation, they are given the opportunity to blend...their personal characteristics, with... the work demands, and experience the nature of working in various occupations. They are able to learn about themselves in relation to different types of work and to develop an intuitive feeling of their own vocational potential (p. 6).

The process of vocational evaluation as a continuing service emphasizes the triangulated, or expressed, tested, and demonstrated interests of adolescents along with the compatibility, or congruence, of these interests with their abilities and aptitudes (Castiglione et al., 2018).

Triangulation can occur only when evaluators use multiple sources of information and a variety of assessment instruments/tools, and methods, such as interviewing, work sampling, community-based vocational assessment (e.g., situational assessment, on-the-job evaluations, job try-outs), objective observation of behavior, etc. The purpose of triangulating is to furnish valid or true results (Leconte, 2019). Demonstrated interests are based on engagement between adolescents and their environments. For example, an adolescent’s expressed and tested interests (e.g., interest inventory) indicate high preference for a computer-related career, but when performing such tasks, he has trouble paying attention, staying on task, and says he is bored. These manifested behaviors nullify his expressed and tested interests as they are more prevailing or true to actual preferences. Most evaluators will verify the adolescent’s interests by describing what was observed and demonstrated. The lack of agreement of his expressed, tested, and demonstrated interests fosters discussion and usually the participant agrees that his demonstrated interests, or lack of them, are most accurate. Triangulation also considers where in the process of brain development an adolescent may be. Later or repeat assessment services might note that an adolescent’s interests have changed. Being informed by adolescent neuroscience and appreciating the changes of the brain, vocational evaluators can observe the complexities of the adolescent brain and how research can inform practice and potential vocational evaluation recommendations. Changing interests are not a fault or problem, they simply are evidences of brain development.

Adolescent brain development, sometimes referred to as the second sensitive period, occurs around 13 and into the mid-twenties (Giedd & Denker, 2015; Jensen & Nutt, 2015), which causes the individual to experience intense emotional, physical, and behavior changes. During this reconstruction, the adolescent brain undergoes pruning of unused neural connections while other connections are strengthened. This allows brain functioning to be more efficient (Osher et al., 2020). The pruning of unused neural pathways occurs during early adolescence (Osher et al., 2020), whereas strengthening connections take place during later adolescence throughout the mid- to late twenties (Giedd & Denker, 2015). It is commonly known that providing education is a primary way to inform and strengthen neural pathways. Less acknowledged is that participating in transition, career, and vocational assessment processes also educates adolescents' understanding of who they are in relation to the world of work (Sitlington et al., 2007). This reinforces the necessity for vocational evaluators and other assessment professionals to understand how the brain develops during this period to ensure that knowledge of self and interests through vocational evaluation are aligned with executive development.

Executive Functions

The majority of the adolescent brain reconstruction occurs in the frontal lobe, the portion of the brain behind the forehead (Kanwal et al., 2016; Meltzer, 2007). Located in the frontal lobe is the prefrontal cortex, home of the executive functions which are a set of goal-oriented, cognitive processes that assist an individual to execute goal-oriented behaviors (Dučić et al., 2018). Executive functions include but are not limited to working memory, behavior regulation, emotional control, initiation, planning, organization, flexibility, and time management (Giedd, 2015; Giedd, 2018; Fuster, 2015; Meltzer, 2007). These cognitive skills provide adolescents opportunities to interact and implement goal-oriented behaviors in response to new or complex circumstances within an environment (Ruiz-Castañeda et al., 2020), including environments that are new to adolescents, such as work (e.g., a picker and packer job in a pet food warehouse) or learning (e.g., plumbing training in a Career Technical Education program).

Individuals' executive function abilities and personal interests change throughout the puberty and the adolescent period (Jensen & Nutt, 2015), which is why evaluating the relationship of executive functions and evolving career exploration and vocational development are vital. Prioritizing steps to reach a goal is another executive function required for sequencing one's plans to achieve a goal, such as having the ability to create a detailed plan to get a job, or to identify courses needed to graduate with a desired degree. Equally critical are the executive functions of adjusting or adapting to changing plans, responding to varying environmental conditions, and having overall flexibility. The ability to think before acting, or response inhibition, is part of executive functioning that helps one manage anxiety and control impulsive behaviors (Jensen & Nutt, 2015). Many of these types of executive functioning (e.g., emotional control) are more evident and demonstrated when adolescents are engaged in activities outside of a controlled laboratory (Skogli et al., 2017) or classroom. For example, hands-on activities within simulated or real work contexts heavily engages emotions and can provide a clearer understanding of adolescents' needs for success in the workplace. For instance, exhibiting anger by throwing down a lug wrench when she cannot remove a lug nut while trying to rotate tires indicates the need for alternative problem solving, such as asking an instructor or colleague for help. Such assessment data exceeds and is more meaningful than that which is gleaned from using paper-pencil or computer-assisted assessment instruments and holds more meaning for the adolescent.

Regardless of which methods, techniques, or instruments are used in career and vocational assessment, including vocational evaluation, adhering to the guidelines provided in the Revised Position Paper of the Interdisciplinary Council on Vocational Evaluation and Assessment (Castiglione et al., 2018) is necessary. The revised position paper provides guidance which are founded on premises of assessment being meaningful, holistic, humanistic, therapeutic, and equitable. To attain

meaningful, holistic, humanistic, therapeutic, and equitable services, understanding hot and cold executive functions via engagement is useful.

Hot and Cold Executive Functions

Observing engagement, such as an individual in relation to the workplace, illustrates executive functions that are assisting adolescents as they develop and solidify their vocational goals. This is true especially if they are performing skills required in their preferred occupational areas. Furthermore, their executive functions assist in the execution of emotions that accompany the successful or unsuccessful implementation of behaviors when attempting to perform or master a skill (Fuster, 2015). Providing multiple opportunities to assess adolescents' abilities can provide insight to their emotional control when they experience either hot or cold executive functions. Hot executive functions emerge when the situation, usually with some degree of uncertainty, can create an emotional response (e.g., motivation, fear). Simply, the hot executive functions have an emotional component (e.g., emotional regulation) (Chavez-Arana et al., 2018; Ruiz-Castañeda et al., 2020). Cool executive functions represent less emotional responses such as when one engages in analytic reasoning, cognitive flexibility, abstract thought, and organization and ranking of information (Ruiz-Castañeda et al., 2020).

When adolescents, including those with disabilities, have access to multiple opportunities to engage with work during vocational evaluation, their levels of hot and cold executive functions are most evident and pronounced. Using vocational or career interest as an example, most formal interest inventories (e.g., O*Net Interest Profiler, Self-Directed Search) assess a person in a cool executive state. With these forms of assessments, there are no time requirements, incorrect answers, or outcome-related consequences. While formal assessment instruments play a part in vocational evaluation, they do not provide the opportunity for hot executive functions to respond to new, complex tasks encountered on the job. Using only paper and pencil career-focused tests or inventories may not provide evaluators with opportunities to differentiate how an adolescent engages in both hot and cool executive functions to complete a task.

Often vocational evaluators use multiple types of assessment strategies in a variety of environments because some formal and informal assessment instruments cannot discriminate between hot and cold executive functions. For example, Skogli et al. (2013) found that when performing assessments in the laboratory that analyzed working memory, planning, cognitive flexibility, and hot decision making, there was no difference between individuals with attention deficit hyperactivity disorder (ADHD) inattentive type and ADHD-combined (inattentive and hyperactivity) type in regards to hot and cool executive functions. Furthermore, adolescents with ADHD-combined demonstrated a greater need in cool executive functions skills when completing the Behavior Rating Inventory Executive Function (BRIEF) compared to ADHD-inattentive or the control group (Skogli et al., 2013). These findings are significant as the assessments were intended to measure hot and cool executive functions, yet were delivered in a controlled environment. The workplace is not a controlled environment, which can create unanticipated stressors (e.g., sustained eye-contact for long periods of time) for an adolescent to which he must respond and adapt throughout an extended time period (e.g., working for long periods without a break). Authentic environments provide vocational evaluators opportunities to observe hot and cool executive functions over a period of time in an uncontrolled setting.

Skogli et al. (2017) conducted a two-year longitudinal study to understand the development of hot and cool executive functions. The study included individuals with ADHD compared to peers without disabilities. Adolescents' ages ranged from 9-16 years old. Throughout the course of the two years, both groups demonstrated improvement in cool executive functioning; however, those with ADHD performed below their peers without disabilities. Adolescents with ADHD and peers without disabilities who showed hot executive functioning, specifically decision making, did not improve

throughout the study. The researchers stated that hot executive functions mature later in brain development this is due to the development of the adolescent brain (Skogli et al., 2017). Thus, there is a clear rationale for providing a spectrum of opportunities to ensure participants indicate their tested, expressed, and demonstrated career interests through various assessments and environments as hot and cool executive functioning develops at different rates throughout adolescence.

Interest in job or work tasks may increase motivation. Work motivation can be challenging to assess, but is critical when assessing skills, because one is evaluating the “arousal, direction, magnitude and maintenance of effort in a person’s job” (Katzell & Thompson, 1990, p. 144). The emotional arousal, observed as hot executive functions of motivation, may be seen through various executive functioning skills and behavioral regulation such as focus, attention to detail, self-correction, and time management. Observing emotional arousal reinforces the need for vocational evaluators to assess adolescents with multiple assessments so they understand how motivation may influence career exploration and future employment opportunities. Furthermore, vocational evaluators can identify potential changes in hot and cool executive function skills. They can observe the impact motivation has on these goal-oriented behaviors as adolescents perform work tasks.

A benefit of performing assessments in community settings, where vocational evaluators can observe specific work-related behaviors is that they gain insight into various ways adolescents respond to their environments. This reaffirms the importance of providing people, especially those with disabilities, opportunities to have authentic work experiences within the community based on their abilities, interests, preferences, and needs for supports or accommodations. These authentic work environments are particularly critical when considering adolescents’ executive response and control during novel work experiences. They may demonstrate emotional control when performing tasks in which they have expressed interest on an interest inventory, but actually performing tasks of interest allows vocational evaluators to observe how adolescents implement executive functions to avoid distractions, manage tasks, initiate behaviors to begin tasks or conduct self-assessment. Furthermore, self-regulation and social skills can be identified while observing how adolescents interact with various personalities provided in a real-time working environment (Fuster, 2015).

Though time-consuming, opportunities to create workplace assessments are needed to identify how the brain is communicating with the prefrontal cortex and which behaviors an adolescent chooses to implement while performing the tasks (Poon, 2018; Zimmerman et al., 2016). This will provide clues to understanding how one demonstrates motivation during internships, situational assessments, or on-the-job evaluations. Motivation, coupled with positive emotions, will provide vocational evaluators with data (i.e., rationale) to recommend specific opportunities to explore job-related tasks within the community for potential employment. Since adolescence is a crucial period of ongoing development, evaluators (and others) must try provide multiple opportunities to exhibit hot and cold executive functioning and to demonstrate motivation and skill development throughout the transitioning period from a child to an adult (Kanwal et al., 2016).

Discussion

Adolescence can be a difficult period for young people as they are learning who they are in relation to the world. While they are adjusting to frequent brain changes, they must also meet typical demands of achieving academically, participating in social activities, and making career decisions which may shape their adult lives. Taking adolescent brain development into account, vocational evaluators and their referral sources will provide most effective services if they understand basic developmental brain changes and the manifestations of these changes. Along with this understanding, both referral sources (e.g., counselors, teachers, parents) and evaluators must be knowledgeable about the three levels of vocational assessment services in order to request and implement specific intervention services (i.e., vocational assessment) that align with adolescents “where they are” and where they hope go. Having

knowledge about the levels will enable optimal outcomes for adolescents, most of whom are trying to acclimate to neurological changes.

To reiterate, Level I and Level II can provide sufficient services for many adolescents, they rely primarily on paper and pencil or computer testing along with interviews, career exploration activities, and, possibly, some work-based assessment methods. In addition to the methods used in Levels I and II, Level III allows vocational evaluators to observe adolescents in simulated or authentic work environments. Thus, they can identify how adolescents may respond to unanticipated incidents experienced while performing work or a job. For example, an adolescent interested in mechanics and they are shadowing an employee in automotive shop. The employee, not paying attention while changing a battery places a wrench on a battery terminal. The resultant, unanticipated connection causes sparks to fly. The real-life, authentic incident allows evaluators to observe how the adolescent responds before, during, and after the incident and also provides insight into her hot and cool executive functions.

Again, adolescence is a time when significant physical changes along with neurological restructuring of the brain (Jensen & Nutt, 2015). Some adolescents physically look like adults, yet, due to the developing brain and executive functioning needs, they may emotionally respond similarly to those who appear much younger. Professionals' subconsciouses may set up unrealistic expectations for adolescents based primarily on physical appearance. As a result, vocational evaluators may unintentionally have unrealistic expectations unless they have an informed understanding of adolescent brain development. Also, this understanding will help practitioners customize and nuance practices. Nuanced and tailored services acknowledge and value how intense brain changes impact individuals' goals, preferences, dislikes, and dreams (Jensen & Nutt, 2015), and why it is important for professionals to provide multiple opportunities in multiple ways to educate and empower adolescents as they relate to the world work (Castiglione et al., 2018). An essential take away from neuroscience research is that connections across the brain strengthen from experiences and understanding consequences (Fields, 2015; Fuster, 2015). Retrieval of skills are related to these brain pathways and provide the ability for adolescents to implement behaviors that are expected in their desired career or vocational environments. Exposure and experience provide opportunities for adolescents to voluntarily, or involuntarily, respond to triggers within the environment (Fields, 2015) which allows self-reflection and adaptation. The latter is possible due to the plasticity and flexibility of the adolescent brain (Kanwal et al., 2016).

Because the executive functions are undergoing constant and dramatic development during adolescence through the mid-twenties (Poon, 2018) and developing at different time periods (Skogli et al., 2017), evaluators are front-line observers of behaviors and performances during the assessment process. Valuable information gained from observing adolescents in authentic work environments, real or simulated, can validate the needs of adolescents so relevant data represent where the individuals are currently presenting success, and not where we think they should be performing. By triangulating and synthesizing the results of all assessment methods and techniques, adolescents, evaluators and referral sources will be informed about which environments, meaning careers and jobs, will make the best matches for their preferences, abilities, aptitudes, skills, needs, and behaviors. It is understood that vocational evaluators start "where the person is" rather than where someone thinks they should be. Again, chronological ages often may not align with adolescents' neurological development.

Recommendations for Practice

Understanding adolescent brain development and subsequent behaviors helps vocational evaluators understand exactly what and possibly why they are observing certain adolescent performances and behaviors as adolescents perform assessment activities. This means evaluators must seek information

and training about teenage behaviors and brain development, since they commonly view behaviors that are associated with adolescents (e.g., response to peers, sensation-seeking actions, risk-taking behaviors) as a part of a developmental period. However, to identify if these behaviors are typical of chronological brain development, if they are manifestations of disability, or if the adolescents have ready rationale for their behaviors, observations must occur either over time or more than once. Some professionals may be tempted to interpret such behaviors as being immature, defiant, or troublesome (Fuster, 2015; Galván, 2017; Giedd, 2015), but by educating themselves about adolescent brain development they may see behaviors through a different lens. Some adolescent behaviors actually may be helpful within the evaluation process, such as a propensity for risk-taking, which may foster exploration of careers and/or jobs adolescents ordinarily may not consider. Also, inclusion of work samples, simulated work tasks, and community-based vocational assessment techniques allow them to try different types of work without the usual risks of failing on a job.

When considering how to better support adolescent executive functioning needs during career exploration and vocational evaluation, practitioners can follow guidelines contained in the “Revised Position Paper of the Interdisciplinary Council on Vocational Evaluation and Assessment” (Castiglione et al., 2018). The guidelines and principles serve to operationalize the field’s philosophical premises (e.g., holistic, humanistic, therapeutic, and equitable) as professionals seek to “do no harm” to those they serve (Castiglione et al., 2018; Smith et al., 1996). Specifically, principles state that practitioners should use a variety of sources to gather information, they should assure that assessments are systematic and that adolescents know why they are performing these activities. Also, assessments should be based on objective behavioral observations and feedback (Castiglione et al., 2018; Smith et al., 1996). These universal guidelines reinforce the importance of ongoing, appropriate, authentic assessment to understand how, or if, certain environments influence hot and cold executive functions on the job.

Recommendations for Professional Development

There is a need for professional development that focuses on adolescent brain development. Advocating for additional professional development for vocational evaluators in general has been well-documented (Leconte, 2014; Reid, 2020; Tidwell, 2016) to develop knowledge and skills to provide assessment within authentic environments. Professionals have requested that federal policy makers include training that includes adolescent brain development to help them understand what they are observing in all environments and how to interpret their observations and other evaluation data accurately (Leconte, 2020). Unfortunately, federal policy makers and allocators of federal training funds have not been responsive to training needs requests, (primarily due to having too few professional development dollars available to meet multiple needs), yet most evaluators have waiting lists for their services. As a result, local and state administrators as well as professional associations (e.g., Vocational Evaluator and Career Assessment Professionals, VECAP) must try to fill this training void with short-term training. Meanwhile, professionals, especially members of the Interdisciplinary Council on Vocational Evaluation and Assessment, should continue to recommend formal graduate education for vocational evaluation.

A second recommendation addresses meaningful, universal access to Level III vocational assessment (i.e. vocational evaluation). Adolescents should have access, both in school and in adult services, to Level III: Vocational Evaluation services, to help them take next steps toward their career and vocational futures. To provide this, referral sources such as transition specialists, secondary education special education teachers, school and vocational rehabilitation counselors, and parents should have access to professional development that acquaints them with the different levels and benefits of vocational assessment. As they become educated about the benefits of these services, time may be saved (and potential, unnecessary failures) in adolescents’ quest for careers or jobs which match their abilities, strengths, temperaments, and wishes. Providing a variety of assessment options (Castiglione

et al., 2018) which include work gives evaluators opportunities to understand teens' emotions. Positive and negative emotions provide crucial data to make recommendations for individuals (noted in evaluation reports) and they showcase interests, preferences, and needs of the adolescents while they interact within certain environments or while performing specific work tasks. The more positive the emotion, the stronger the connection throughout adolescents' brains (Galván, 2017; Joseph, 2017). The movement away from paper and pencil or computer tests towards using work in authentic work environments, allows evaluators to better gauge emotions and preferences of adolescents. There needs to be a focus by all professional assessment entities to encourage the use of stimulated or real work settings to understand the potential role of emotions on the job. All this said, a third recommendation regarding professional development includes the need to train assessment personnel, particularly vocational evaluators, to use authentic assessment based on work, real or simulated. Since there are no longer graduate education degrees for vocational evaluation, evaluators must resort to on-the-job training or on what they have learned in rehabilitation or special education graduate programs. Unfortunately, because vocational assessment, especially vocational evaluation is not emphasized in these programs (due to lack of time and to meeting the requirements of accrediting bodies), vocational assessment is addressed in a cursory fashion and the focus is on testing.

To increase the availability of vocational evaluation services, the general public, particularly professionals working with adolescents must understand what they are and their value. Once they understand the benefits to adolescents through professional development, they can advocate for the inclusion of services in secondary and postsecondary education, vocational rehabilitation, and workforce development. A few vocational evaluators volunteer to do presentations in college and graduate school vocational rehabilitation and special education programs. This is a positive step, but, again, the Interdisciplinary Council and VECAP could craft a systematic campaign to encourage that training related to vocational evaluation be incorporated into local graduate educational programs.

Conclusion

Adolescents have years when their brains constantly develop and respond to the environment (Armstrong, 2016; Banich et al., 2013; Fuster, 2015). While prefrontal cortex development can begin to have strong influences on behaviors as early as ages 10-12, the developmental period may not end until around ages 25 or older (Fields, 2015; Fuster, 2015; Giedd, 2015). While no one age denotes the move from adolescence to adult maturity, maturity evolves over a range of years when connections to brain regions occur and influence behaviors (Galván, 2017; Giedd, 2015; Poon, 2018). Vocational evaluation provided by professionals who understand executive functioning within adolescents' prefrontal cortex can be the conduit that ensures adolescents are receiving meaningful opportunities to explore and reflect on the world of work—which can lead to satisfying, economically sound employment.

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Pamela Leconte worked as a vocational evaluator in community rehabilitation program settings and in public schools and served on the Commission on Certification of Vocational Evaluators and Work Adjustment Specialists for almost nine years and was a Certified Vocational Evaluator. For over 30 years she served on the faculty in the Special Education and Disability Studies Department at George Washington University. While there she directed the Collaborative Vocational Evaluation Training Master's and Education Specialist program, initiated the online Master's and Certificate programs in transition services, and taught a variety of courses, including vocational evaluation, legal issues and disability policy.

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Work Adjustment Strategies for Individuals with Autism Spectrum Disorders

Lindsay Chute
Student Award Winner

Abstract

The prevalence of Autism Spectrum Disorder makes it very likely that evaluation and career assessment professionals will work with individuals from this population. The Theory of Work Adjustment can be helpful to conceptualize factors relevant to assisting individuals with autism spectrum disorders in locating suitable employment. Further, it may be important to educate employers regarding work adjustment concepts as well. This VECAP Student Award winning article provides a discussion of autism spectrum disorder as related to work adjustment theory. The paper also provides insights that are helpful when working with potential employers.

Keywords: Autism spectrum disorder, work adjustment, theory of work adjustment

It is estimated that nearly 1 in 44 children carry a diagnosis of Autism Spectrum Disorder (The Center of Disease Control, 2021). The Center of Disease control defines Autism Spectrum Disorders (ASD) as “a developmental disability that can cause significant social, communication and behavioral challenges” (2021). As individuals on the spectrum grow up, they may need support for successful engagement in a workplace (Johnson, et al., 2020). Specifically, the workplace can demand use of social skills, i.e., the understanding of nonverbal cues, areas that can be difficult for individuals on the spectrum. The Theory of Work Adjustment aids professionals in helping individuals with Autism acclimate to the workplace (University of Minnesota, 2022).

According to The University of Minnesota, “The Theory of Work Adjustment (TWA) describes the relationship of the individual to his or her workplace environment” (2022). The Theory of Work Adjustment illustrates the relationship between work and the employee as a symbiotic relationship. The employee performs the tasks in which the workplace benefits, and the employee benefits from compensation in pay as well as certain benefits, such as discounts and depending on the job, insurance. A maintained relationship between the employee and the workplace can only occur when both parties are performing their tasks. The University of Minnesota (2019) also summarizes work adjustment as “the process of achieving and maintaining correspondence.”

Within the next ten years, it is estimated that there will be a half a million people with Autism reaching the milestone of adulthood (Griffiths et al., 2016, p. 5). Adulthood brings independence as well as responsibilities. To pay for those responsibilities, a steady job is required. In the United States, an adult must forgo their parent's health insurance at age twenty-six and find their own. Over 156 million Americans are on employer-based health insurance plans (O'Leary, 2021). Therefore, a full-time job with benefits is a must for many Americans. This staple of employment does not exclude people with Autism. However, people with Autism diagnoses are less likely to receive the benefits in return for the work that they do (Griffiths, et al., 2016, p. 5).

Adults with Autism experience unemployment and underemployment at higher rates than their peers without ASD (Hedley et al., 2017, p. 1). Along with their peers in the workforce, people with Autism Spectrum Disorders are both qualified and apt to gain and maintain fulfilling employment (Hendricks, 2009, p. 125). However, that can be overshadowed by the lack of understanding of social cues and other behaviors that are needed to go through life. To combat unemployment as well as underemployment, there are strategies that can be utilized by the employee.

Underemployment is a common problem among people with disabilities due to the frustration of job hunting and employer discrimination. Jumping at the first offer may be the most tempting solution when it comes to finding a job, but employment should have purpose. It is immensely important to find an employment match where the employee and workplace mesh together well. "Job placement [needs] to be individualized and based on the person's strengths and interests" (Hendricks, 2009, p. 128). Job prospects need to be appropriate for the intellectual and cognitive abilities of the employee. "Experience has proven that with proper intervention and training, individuals with ASD can work in a variety of businesses and industries" (Hendricks, 2009, p. 129). Supported employment agencies can help people with Autism Spectrum Disorders flourish in the workplace by teaching the client everything they need to know about workplace etiquette along with giving the client objectives to reach. According to Hendricks (2009):

These objectives include the worker with ASD: understands his or her job tasks; can complete all job tasks to the satisfaction of his or her supervisor; understands all workplace rules; knows the start time, end time and break times; understands sick leave and vacation policies; is aware of emergency procedures; knows his or her way to pivotal areas in the building and knows how to get to and from work (p. 129).

In addition to supports from an agency, disclosure of an Autism Spectrum Disorder to an employer may be beneficial. Barbara Bissonette (n.d.) suggests that "the best approach is to develop a personalized plan based on the many factors that affect employment outcomes." Under the Americans with Disabilities Act, employers are required to provide accommodations if the circumstances require it. According to Bissonette (n.d.), it is important to "keep your statement short, simple and to the point." It is recommended for the employee to document how their different abilities manifest in the workplace as well as accommodations that would best serve them. Then they have a foundation to start a conversation with their employer. (Bisonette, n.d.).

Conversations should be an ongoing event in the workplace with someone that the employee with an ASD trusts. Molly Sullivan (n.d.) suggests "identifying a supportive person in the workplace who can act as a mentor for confusing situations and day-to-day questions." This mentor can be found with the help of a superior or a human resources representative. However, both employees should agree on the mentorship. In addition to having a constant mentor to navigate the work environment, "being a good self-advocate" (Sullivan, n.d.) is imperative to vocational success and a rapport with coworkers and superiors.

Strategies for Employers of Employees with Autism Spectrum Disorders

“Both knowledge of the disorder as well as job supports available are important prerequisites for employing individuals on the spectrum” (Hendricks, 2009, p. 129). Social inclusion among co-workers is also paramount for success. Effective and direct communication is key when collaborating with employees who have Autism Spectrum Disorders. Direct statements such as, “Please begin your work on the database assignment’ and ‘Please meet us in the cafeteria at 12:00 p.m. if you would like to eat lunch with us” (Rowe & Ackles, n.d.) are most effective because there is nothing left up to interpretation. Both statements provide exact directions which will help the employee know what is expected. It is also ideal to “put instructions in writing and follow up your verbal instructions with an email” (Rowe & Ackles, n.d.) for utmost retention.

According to Rowe and Ackles (n.d.), it is best to “avoid any indirect patterns of speech, including clichés, implied meanings and idioms.” These statements can confuse employees with ASD’s and in turn, impede their vocational and social progress. Therefore, it is best to just give statements with the information necessary. It is good to brief other employees on this as well for a most inclusive environment.

In addition to verbal interpretation, nonverbal interpretation can prove difficult for individuals with ASD’s in the workplace. Therefore, Rowe and Ackles (n.d.) suggest to use words primarily to communicate. As opposed to sitting in silence to conclude a one on one meeting, it is suggested for a superior to use a statement such as, “Now that our meeting is over, I need you to return to your work station now because we have work to complete” (Rowe & Ackles, n.d.).

Strategies of Coworkers of Employees with Autism Spectrum Disorders

Collaboration with coworkers in vocational and social aspects will help employees with Autism Spectrum Disorders flourish to the best of their abilities. According to William Purdy (2018), “The first and most important thing that anybody can understand about ASD is that the people living with it are, just like everybody else, individual in their personalities and dispositions.” Changing the mentality about ASD’s as well as other learning and intellectual differences can foster an environment of inclusion and acceptance in the workplace. Every person with an Autism Spectrum Disorder is different. They, like their neurotypical counterparts, have preferences and “pet peeves.” “Few people on the spectrum will ask for anything extreme when they interact with you” (Purdy, 2018). Employees with these differences have experience and skills to bring to the table and they should be treated as such. A lunch invitation extended to everyone should also be extended to an employee with an ASD.

Discussion

Since Autism Spectrum Disorders are on a wide spectrum, there is no “one size fits all” approach to workplace accommodations. That is why these employees need to have their accommodations tailored to them case by case. Even though there are a plethora of lists stating tips and tricks, such as having “headphones or earplugs to reduce sound levels” or “social stories for the workplace” (Standifer, pg. 41, 2009), it seems that the best action to take regardless of the case is to foster an environment of understanding. Asking the individual what they need is more effective than just assuming that they will not understand idioms or common jokes.

To foster understanding, Autism awareness as well as sensitivity training should be given to all employees and supervisors (Streeby, pg. 25, n.d.). Given the increase in Autism diagnoses, everyone may know at least one person with the cognitive difference. However, knowing one person with an ASD does not make an Autism Spectrum Disorder expert. A rapport between a job coach, an employee with an ASD and the supervisor is always the best bet.

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