

Features

**PROMOTING JOB SAFETY FOR WORKERS WITH
INTELLECTUAL DISABILITIES: THE *STAYING
SAFE AT WORK* TRAINING CURRICULUM**

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ABSTRACT

In the United States, approximately 125,000 people with disabilities are employed through Community Rehabilitation Programs in manufacturing, assembly, and service jobs. These jobs have significant hazards and, consequently, the workers are at risk of injury. Training that empowers workers to participate in prevention efforts can help reduce work-related injuries. In general this kind of health and safety training in the United States is limited. It is even more so for workers with intellectual disabilities, in part because there have not been programs for teaching individuals with cognitive challenges health and safety skills, adapted to their learning needs. This paper describes the development and promotion of the *Staying Safe at Work* curriculum of UC Berkeley's Labor Occupational Health Program, which is designed for use by support agencies and employers of workers with intellectual disabilities. The goal of this program is to teach these workers essential occupational safety and health skills in a manner they can understand.

Keywords: intellectual disabilities, developmental disabilities, sheltered employment, occupational safety and health

Work is an essential part of life. It provides us with the means to support ourselves and our families, gives meaning to our lives, helps define who we are as individuals, and allows us to make a contribution to society. For a variety of reasons, the employment of individuals with intellectual and physical disabilities lags significantly behind the employment rate of the general adult population. Only 21.3 percent of working-age adults with disabilities are employed, compared to 70.2 percent of those without disabilities [1]. A person with disabilities is defined by the Bureau of Labor Statistics as a person with at least one of the following conditions: is deaf or has serious difficulty hearing; is blind or has serious difficulty seeing, even when wearing glasses; has serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition; has serious difficulty walking or climbing stairs; has difficulty dressing or bathing; or has difficulty doing errands alone such as visiting a doctor's office or shopping because of a physical, mental, or emotional condition [1].

Over the past several years, a number of federal initiatives have sought to lower the unemployment rate of people with intellectual and physical disabilities (currently 16.9% as compared to 9.0% for the population as a whole) [1]. They aim specifically to increase the opportunities for these individuals to work in meaningful, high-quality jobs, for decent wages, in competitive employment situations. Laws promoting the employment of workers with disabilities include the Javits-Wagner-O'Day Act of 1971, the Americans with Disabilities Act, the Rehabilitation Act, the Workforce Investment Act, the Vietnam Era Veterans' Readjustment Assistance Act, the Civil Service Reform Act, and the Developmental Disabilities Assistance and Bill of Rights Act of 2000 [2, 3]. Advocacy organizations, certain private companies (e.g., Walgreens Company, Habitat International, Best Buy, Lowes, Sears, The Home Depot, AT&T, and Procter & Gamble [4]), and the numerous nonprofit Community Rehabilitation Programs (CRPs) around the country are also promoting the importance and value of hiring people with disabilities.

Where are Adults with Disabilities Employed?

When employed, adults with intellectual and physical disabilities work in a variety of settings. These include mainstream work environments such as grocery stores, warehouses, and eating places, sometimes working with a job coach who trains and supports them to perform the required tasks successfully. Some people with disabilities own their own micro-enterprises, such as lawn-mowing businesses, paper-shredding services, or coffee stands. However, the setting employing the largest number of people with disabilities is the Community Rehabilitation Program (also called community-based vocational rehabilitation service) [5]. Work done by employees of CRPs occurs either in the CRP's

own facilities or in the community for other companies and government agencies as part of an enclave or other supported employment situation.

CRPs typically have a dual function with regard to their employees (sometimes referred to as clients or consumers). In addition to providing employment for individuals for whom mainstream jobs might be difficult to secure, they offer rehabilitation services, including life skills training and sometimes recreational activities. Many CRPs contract with government agencies and private companies to provide various services or to manufacture or assemble a variety of items whose production cannot easily be automated. The Javits-Wagner-O'Day Act, which established the federal AbilityOne Program, encouraged the employment of individuals with disabilities by making it a priority for federal agencies to purchase specified products and services from qualified CRPs employing people who are blind or have other significant disabilities. The breadth and scope of products and services provided by CRP employees to the military and other branches of the federal government, as well as to a variety of commercial enterprises, is truly impressive and should be encouraged and expanded.

WORKERS WITH DISABILITIES OFTEN PERFORM HAZARDOUS WORK

Although the products and services provided by CRP employees across the country are important, the work itself can be hazardous, as it often is for vulnerable populations of workers. Jobs that require working with sharp tools or machinery with moving parts, that involve repetitive movements or lifting heavy objects, or that require the use of chemicals all put workers at risk of work-related injuries and illnesses. These tasks are common in CRPs, warehouses, and other typical places of employment for individuals with disabilities. Workers in CRPs manufacture, assemble and/or distribute numerous different types of products including office supplies, wooden pallets, military clothing and supplies, detergents, paints and surgical items, and so forth, and perform such services as landscaping, building maintenance, food service, mail center operations, laundry services, order processing, and document destruction [6].

It is difficult to assess the work-related injury rate for workers with disabilities because Bureau of Labor Statistics (BLS) data do not differentiate between injuries to workers with and without disabilities and because industry coding of CRPs is confusing and inconsistent. However, we do know that the injury rates are high in many of the types of industries where the work is similar to that being performed in CRPs. For example, in 2009 the injury rate for general warehousing and storage was 5.8 injured workers per 100 full-time employees, for wood container and pallet manufacturing it was 7.6, and for food manufacturing it was 5.0 [7]. These high injury rates, which are compared against the injury rate of 3.4 injured workers annually per 100 full-time employees for

private industry as a whole, can be explained by the hazardous nature of the work being performed.

It must also be acknowledged that employees with intellectual and physical disabilities may have special characteristics (distractibility, unstable gait or other physical risk factors, poor problem-solving skills, poor communication skills, difficulty reading or generalizing to new situations, etc.) that increase their risk of occupational injury and illness [8]. On the other hand, employees without disabilities also bring individual risk factors to the job. An important goal, therefore, is to create workplaces that—by design—are safe and healthful for all employees.

As detailed below, workers with intellectual disabilities face challenges that make them uniquely vulnerable, even among the general population of workers with disabilities. Recognizing hazards and speaking up to advocate for solutions can be particularly challenging for this specific population of workers.

OCCUPATIONAL SAFETY AND HEALTH TRAINING CAN HELP PREVENT INJURIES

Employers have a responsibility to eliminate, or at least greatly reduce, the hazards in their workplaces, and providing occupational safety and health training that empowers workers to participate in hazard identification and control activities is an effective step toward meeting this responsibility. Occupational safety and health training in general is limited, but it is even more so for workers with intellectual disabilities. The Labor Occupational Health Program (LOHP) at the University of California, Berkeley (UC Berkeley), conducted a needs assessment study in 2006 and found almost no examples of comprehensive health and safety training being provided to this population of workers [8]. When training is provided, it typically involves a supervisor or job coach instructing workers on what to do or not do with regard to a particular task. Although this kind of instruction is important, it does not provide workers with the skills to assess their working environments as a whole and to be able to solve problems when the situation or task changes.

All workers, including those with intellectual disabilities, need to be able to recognize job hazards and know how to protect themselves from these hazards. They need information about their health and safety rights and responsibilities on the job, and they need to know what to do in an emergency or when something unexpected happens. Perhaps most importantly, they need to understand their right to speak up when a problem arises. This, of course, is also of enormous value to the employer, when workers independently identify and take action to mitigate an imminent hazard in the workplace. To encourage this behavior, especially among workers with intellectual disabilities, it is necessary for the employer to cultivate a work environment that supports and encourages employee involvement in injury and illness prevention efforts. As reported by one

supervisor from a CRP, “We have to specifically teach our AbilityOne employees that they won’t get in trouble for telling us about a workplace problem” [9].

The following example illustrates the importance of teaching workers the skill of speaking up: A young man with intellectual disabilities was working on a fryolator in a fast food restaurant. He accidentally dropped his tongs into the hot grease. He was so worried about getting in trouble for losing the tongs that he reached into the hot grease to retrieve them. He suffered third-degree burns to his hand [10].

Development of a Tailored Occupational Safety and Health Training Program

To date, health and safety training for workers with intellectual disabilities has been limited because support agencies and employers have not developed tailored training programs to help teach these important skills in a manner that is understandable to individuals who may have trouble reading or understanding complicated concepts. Training that is appropriate for these learners breaks down concepts into small bits of information, builds on previous learning, and reinforces skills through repetition and the opportunity to practice exercising these skills in actual or simulated settings. UC Berkeley’s LOHP developed its curriculum, *Staying Safe at Work: Teaching Workers with Disabilities about Health and Safety on the Job*, to bridge this gap [11]. The project focused specifically on the learning needs of workers with intellectual disabilities, because workers with physical challenges alone generally do not require a modified curriculum.

Development of the curriculum was funded by the National Institute for Occupational Safety and Health (NIOSH) and is intended for use by job development programs, supported employment agencies, CRPs, other employers, and high school transition programs to teach individuals with intellectual disabilities about job safety in an interactive, supportive atmosphere that encourages them to understand and practice what they learn. The curriculum provides instruction on teaching basic occupational safety and health skills, using hands-on, highly visual, fun activities that do not require literacy skills. Participants use the following learning activities to learn four basic skills.

1. *How to identify hazards in the workplace that can cause injuries, illnesses, and job stress.* This skill is taught by having trainees view a series of illustrations of different kinds of workplaces, where they identify the tools, equipment, and conditions that could cause an injury, illness, or mental stress. By evaluating a number of different workplaces with various kinds of hazards, the trainees develop a base of knowledge, a way of “seeing,” that can be generalized to other workplaces. After discussing different hazards and how they might harm the body, the curriculum asks the instructor to take the group on a tour of the workplace where trainees are employed,

for the purpose of identifying hazards and discussing control strategies. Another activity involves teaching trainees about musculoskeletal (ergonomic) risk factors in the workplace. In this case, the instructor demonstrates a common task and trainees call out the name of the body part that might be injured if this task is performed over and over, without sufficient breaks.

2. *How to protect themselves from workplace hazards.* To learn how to come up with solutions to health and safety problems, participate in prevention activities, and follow safety rules, trainees listen to the stories of three workers who were hurt or made sick on the job. The trainees are then asked to: 1) identify the hazard causing the injury or illness (to reinforce hazard identification); and 2) identify ways of preventing the injury or illness. This activity is followed by an activity in which trainees try on different kinds of personal protective equipment and call out the kinds of hazards they think the equipment would protect them from.
3. *What to do in an emergency.* To learn how to respond appropriately to a number of different emergency situations, trainees play a board game called “Disaster Blaster.” Teams of two play against each other by taking turns answering questions about “what to do” in different kinds of emergencies while they move around the game board. Participants learn appropriate emergency response actions as they play the game. This is the one activity in the curriculum that requires some reading; however a job coach or other volunteer can be assigned to each group of four to read the questions and answers on the cards provided.
4. *How to speak up effectively when there is a problem at work.* Speaking up when there is a problem at work can be challenging for any worker, but it can be particularly difficult for workers with intellectual disabilities. The skill of speaking up must be discussed and then practiced with workers in order to ensure that it is adopted and exercised when needed. The curriculum teaches this skill through a series of scenarios in which the instructor has each trainee pretend to be a worker who has to identify a problem raised in the scenario, decide on a solution to the problem, and then say the words they would use to address the problem or ask for help.

The *Staying Safe at Work* curriculum was initially developed with input from high school teachers affiliated with the WorkAbility Program, which is California’s high school transition program for students with disabilities. The curriculum was then pilot-tested with 12 adults with intellectual disabilities working in a variety of settings in Davis, California. Three high school transition teachers helped facilitate the small-group activities.

Pre- and post-tests were administered at the beginning and end of the class, with the teachers assisting trainees in responding to the questions. The teachers were instructed not to provide trainees with the answers. Questions related to

identifying hazards in the workplace, protecting workers from hazards, identifying the name of the government agency responsible for protecting worker safety, finding out about hazardous chemicals used at work, finding out what kinds of things employers need do to protect workers, and how to take action when a hazard is identified on the job. Differences between pre- and post-test results showed improvements in knowledge in nearly all areas covered on the test. Among the 11 trainees, seven had increased the number and quality of their answers from the pre-test to the post-test, and four trainees had the same or similar answers on both the pre- and post-tests.

After reviewing the pre- and post-test results and consulting with the teachers, we modified the curriculum to include simpler, clearer instructions. We added scenarios for the Speaking Up module to include examples of workplace problems participants had actually faced.

We conducted additional pilot-testing of the curriculum with a large national retail pharmaceutical chain which is a large employer of individuals with disabilities. This company has launched a forward-looking initiative to hire at least 40 percent of their employees from the disability community whenever it builds a new distribution center. As they build these new warehouses, they work with local supported employment agencies to recruit and train individuals with disabilities at a training center until the trainees are ready to be formally hired by the company.

The company's original training program for all employees consisted of videos on numerous topics, which is a common form of occupational safety and health training. Before introducing *Staying Safe at Work* to their trainees, we modified the curriculum to include terminology used by the company and common hazards found in warehouse work. Although a systematic evaluation was beyond the scope of this project, job coaches who attended the training with their client trainees were asked about their willingness to teach the course on an ongoing basis. All 18 job coaches agreed to teach the course to their clients, including those not training for distribution center jobs. Approximately half of the participating job coaches were reached by phone or email in a follow-up survey. We found that all of those reached had used most of the curriculum to teach their clients.

Promoting Occupational Safety and Health Training to NISH-Affiliated CRPs

LOHP has formed a partnership with NISH (formerly known as the National Industries for the Severely Handicapped) to promote the *Staying Safe at Work* training program to their member Community Rehabilitation Programs. NISH is one of two national nonprofit organizations (the other being the National Industries for the Blind, or NIB) that is designated by the federal Committee for Purchase from People Who Are Blind or Severely Disabled to help CRPs

compete for federal contracts under the AbilityOne program. More than 1,318 CRPs, employing almost 125,000 individuals with disabilities around the country, are affiliated with NISH [12]. Approximately 42,700 of these individuals are employed on AbilityOne contracts [12].

Since August 2008, LOHP has provided training programs on health and safety and how to use the *Staying Safe at Work* curriculum to over 750 representatives from NISH-affiliated CRPs from around the United States. We have delivered additional training programs to more than 100 high school transition teachers, support agency staff, and employers of workers with disabilities in Oregon, Iowa, and Massachusetts.

RECOMMENDATIONS

In light of the various occupational safety and health issues facing workers with intellectual disabilities, we offer the following recommendations for advancing their workplace health and safety:

1. *Federal agencies with an interest in the occupational safety and health of workers with disabilities should fund a rigorous evaluation of the Staying Safe at Work training that has been conducted for NISH members to assess the extent to which occupational safety and health training is now being provided to their employees with disabilities.* Although training on use of the *Staying Safe at Work* curriculum has been provided to over 750 members of NISH, the number of CRPs actually using the curriculum to teach their employees with disabilities is unknown. It is also not known whether employees with intellectual disabilities who have received *Staying Safe at Work* training from their supervisors have exercised any of the skills taught in the course. To learn the answers to these questions, it would be valuable to conduct a follow-up survey with a sample of CRPs that have sent a representative to a *Staying Safe at Work* course.
2. *Increase the capacity of organizations that oversee CRPs to support injury and illness prevention programs and to recognize occupational safety and health problems.* Several national organizations provide oversight to the CRPs. These include NISH; the National Industries for the Blind; the Commission on Accreditation of Rehabilitation Facilities (CARF), an independent, nonprofit organization that reviews and accredits CRPs and other programs; and the Committee for Purchase from People Who Are Blind or Severely Disabled. The staffs of these organizations are uniquely positioned to provide individualized support and education about occupational safety and health to management of the CRPs they routinely visit. To better assist CRPs in developing comprehensive and effective injury and illness prevention programs, the auditors and surveyors

from NISH, NIB, CARF and the Committee would benefit from training in occupational safety and health.

3. *Increase awareness about occupational safety and health as an issue for workers with intellectual disabilities among federal agencies and others that are promoting the employment of individuals with disabilities.* There are a variety of federal agencies interested in the employment of individuals with disabilities. These agencies should follow NIOSH's lead and include an emphasis on addressing the occupational safety and health needs of workers with intellectual disabilities. These agencies should consider funding occupational safety and health education and outreach projects targeting members of this population, and their employers, as well as a variety of research efforts. Research goals could include gaining a better understanding of the work-related injury experiences of this population, as well as identifying best practices among employers that have initiated model accommodations, tailored training programs, and effective safety support systems.

CONCLUSION

Although the employment rate among individuals with disabilities is low, these workers are making an impressive contribution to the U.S. economy. The variety of products and services being provided by CRPs under the AbilityOne program and through commercial and state government contracts is inspiring. Large quantities of military uniforms, medical supplies, food products, hardware, and various kinds of equipment are produced or assembled by people with disabilities. Numerous government buildings are cleaned and the grounds maintained by teams of workers with disabilities. These efforts, as well as initiatives to integrate individuals with disabilities into the competitive labor market, should be commended and encouraged.

It must be recognized, however, that workers in CRPs are exposed to significant work-related hazards. This fact—combined with the challenges they face in identifying, acting on, and communicating about these hazards—makes them a vulnerable working population deserving of special attention. Effective training, tailored to their learning needs, which empowers these workers to participate in prevention efforts is an essential step toward addressing the gap in worker health and safety protection that they face. Supervisors and managers also need training about job safety and effective control measures for these employees, and about how to teach their employees occupational safety and health knowledge and skills in a manner they can understand. Results from the evaluation of the *Staying Safe at Work* training program, as well as feedback from job coaches, teachers, and supervisors who have taught the course over the past three years, have indicated that the *Staying Safe at Work* curriculum

successfully teaches the skills needed for workers with intellectual challenges to identify, act on, and speak up about hazards on the job.

ACKNOWLEDGMENTS

The author would like to acknowledge the ongoing support provided by Sherry Baron, MD, MPH, Coordinator for Occupational Health Disparities, National Institute for Occupational Safety and Health, for activities related to promoting the occupational safety and health needs of workers with intellectual disabilities.

NOTES

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