Using Wireless Technologies to Facilitate Competitive Integrated Employment for Individuals with Disabilities: A Systematic Review of the Literature

Eliseo Jimenez, Ph.D; BCBA-D; Josephine Mhende, MPH; Dustin Ducharme, M.Ed;
Ramatu Muhammad, MD; Andrew Roach, Ph.D

Center for Leadership in Disability at Georgia State University, UCEDD/LEND;

Introduction

- Employment is a major part of an adult’s identity and plays a significant role in creating a stable life environment (Chen, 2015)
- Americans with Disabilities Act (ADA) enacted a new set of standards for employers that requires reasonable accommodations to qualified individuals with disabilities in the workplace
- Workforce Innovation and Opportunities Act (WIOA) requires all state vocational rehabilitation programs must focus some of their efforts on transition services and pre-employment services, which includes training for assistive technology
- Even though employment is an attainable goal for individuals with disabilities, only 51.8% of young adults with ID were gainfully employed (NLTS-2).

Assistive Technology (AT)

“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” (IDEA, 2004)

Internet of Things (IOT)

Methodology

Research Questions
1) What types of technology are being used in vocational skill acquisition interventions for individuals with IDD?
2) Of the technology used for vocational skill training, which technologies have wireless capabilities, and are those capabilities utilized during the intervention procedures?

Literature Review
An extensive review of the literature was conducted by faculty, students, and staff at Georgia State University. Inclusion criteria: studies had to 1) include participants with ID, 2) target a physical vocational skill, 3) use wireless technology, 4) utilize single-case methodology

Data / Analysis
- 41 studies met inclusion criteria -183 participants (111M, 27F). Intervention type (83% visual/audio; 17% audio only)
- Intervention location (27% job sites; 92 schools; 10 clinics; 11% combination)
- Technology used (36% tablet; 17% smartphone; 16% wearable; 35% laptop/desktop)
- Studies reported increases in job functioning, work rate, self-esteem, self-determination
- Few studies (2) taught participants how to use the technology

Conclusion

Very few studies utilized wireless functions within interventions. Although many researchers utilized schools as their intervention location, very few studies included opportunities to generalize their skill to the job site or acquire the skill at the job site. Surprisingly, a large number of studies utilized tablets versus smaller devices more commonly used on a daily basis (e.g., smartphone)

References

1. American Disability Act (ADA), Title II, Sec. 12182
6. NIDILRR grant number 90RE5025. NIDILRR is a Center within the Administration on Community Living (ACIL), Department of Health and Human Services (HHS). The contents of this poster do not necessarily represent the policy of NIDILRR, ACIL, HHS, and you should not assume endorsement by the Federal Government.