"That Smart Pen Sounded Like it Could Be Pretty Helpful:"
A Thematic Analysis on Using Wireless Technology in the Workplace

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Abstract

- Employment is a major part of an adult’s identity and plays a significant role in creating a stable life environment (Chen, 2015).
- Individuals with intellectual or developmental disabilities (IDD) are not an exception.
- Employment creates many of the same benefits for adults with IDD as it does for other working adults, including increased self-worth, social networks, and partnerships (Cavkaytar, 2017).

- As adults with IDD enter or remain in the workforce they may desire support in order to enhance their success at their place of employment (Arthanat, 2016).
- Workplace support for adults with IDD is dramatically depending on the needs of the employee, supervision, accommodations, or assistive technology.

Background

What is Competitive Integrated Employment (CIE)?

CIE is work performed by a person with disability within an integrated setting. Wages are at least minimum wage or higher at a rate comparable to workers without disabilities performing the same tasks.

Why is CIE important?

Competitive integrated employment positions provide customized employment and workplace support to meet the specific abilities of the individual with a disability as well as the business needs of the employer.

Research Question:

Can the use of wireless or wearable technologies facilitate competitive integrated employment for individuals with intellectual and developmental disabilities? What type of technology is being used? Is this technology accessible?

Research Methodology

Determine Inclusion Criteria:

- Adult with an Intellectual and Developmental Disability
- A family member to an adult with an IDD
- A vocational rehabilitation counselor
- A certified job coach
- A transition coordinator
- Other Disability Service Provider

Create Semi-Structured Interview Questions

1. Thinking about your work and career, what are some wireless technologies or wearables that you use as part of your employment?
2. What are some barriers or challenges you have experienced with using wireless technologies or wearables in the workplace?
3. What type of assistance if any might be helpful for you to use wireless technologies or wearables in the workplace?
4. If you have used wireless technology or wearables in the workplace which ones were most helpful? Are there other technologies that you think might be helpful in supporting competitive integrated employment?

Conduct Focus Group Interviews

- 5 focus groups (n=9 to 10) Miniatures Each
- 13 participants total
- 16 individuals identifying as having disabilities
- 46% currently employed
- 3 payments or caregivers of individuals with disabilities
- Audio recorded

Qualitative Research Design

- Thematic analysis
- Line-by-line coding
- Determining themes
- Analysis tool: NVivo 12

Use Findings to Inform Research

1. Findings from analysis help reform research and policies around competitive integrated employment
2. Provides information about using technology in the workplace
3. Data tells the story about individuals with disabilities using technology as a support in the workplace

Findings

Theme: Challenges + Barriers to using technology in the workplace

- Technical issues
- No support from employer
- Lack of awareness surrounding technology in the workplace

Theme: Assistance with using technology

- Assistance from family/caregiver
- Assistance from tech support
- Assistance from someone at work
- Self-assist

Theme: How would you classify yourself?

- Tech savvy
- Some tech know how
- None

Theme: Type of technology used in the workplace

- Wireless technology examples
- Wearable technology examples

Table 1. Common themes from focus group sessions.

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<thead>
<tr>
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<td>Technology not allowed/Not supported in the workplace</td>
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Wearable technology examples

- The smart pen
- The voice-assisted pen
- The voice-activated pen
- Telepresence

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2. Hold your device over a QR Code so that it’s clearly visible in your smartphone’s screen.
3. Use a QR Code scanner on the tool’s blog to see the contents of this poster read to you.

Conclusions

One method of support that can facilitate and maintain successful employment is assistive technology.

Where do we go from here?

- Educate and influence fiscal dollars
- Support development of new technologies
- Increase awareness surrounding technology in the workplace
- Improve access and use of wireless technologies

References


Conclusion:

The goal of this research was to understand the use of wireless or wearable technologies in the workplace by individuals with intellectual or developmental disabilities. The findings suggest that while some individuals with IDD are using wireless or wearable technologies, there are significant challenges and barriers to the use of these technologies in the workplace. Assistance from family/caregivers and tech support is often necessary. The use of wireless or wearable technologies can be a crucial support in facilitating competitive integrated employment for individuals with IDD. Further research is needed to explore the effectiveness of wireless or wearable technologies in the workplace and to develop strategies to overcome the challenges and barriers encountered.

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