

Prepared and Ready: Equipping Students for Meaningful Post-secondary Opportunities

Literature Review

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I. Introduction

Individuals with disabilities have lower employment prospects as compared to their peers.¹⁻²⁰ While 78% of people who do not have disabilities report part- or full-time employment, this is only true of 35% of people with disabilities.¹⁴ The Office of Disability Employment Policy cites employment rates for individuals with disabilities as 60-70% less than those without disabilities.²¹ Furthermore, research shows that nearly three times as many people with disabilities live in poverty with less than \$15,000 in annual income, when compared to those without disabilities.¹⁴ However, there is evidence that transition services and education can successfully decrease the unemployment rate for this population.¹⁴ Research suggests that “for individuals, with or without disabilities, to obtain and maintain employment, they must possess a strong foundation of transferrable and general employability or work-readiness skills.”⁹ While individuals with disabilities face a variety of barriers when considering transition to adulthood and employment opportunities, these barriers can be addressed through evaluation and intervention strategies in order to optimize their success and equip them for meaningful post-secondary opportunities. Addressing areas related to post-secondary transition is essential to quality of life for people with disabilities.⁴ However, having an effective impact on these areas requires early planning and skill development so that students can be prepared and ready.⁷

II. Post-secondary Transition for Students with Disabilities

The Individuals with Disabilities Education Act (IDEA) stipulates that post-secondary transition planning must begin by age 16 at the latest.⁸ The term “transition” in the context of the healthcare system is often used to discuss continuity of care, or lack thereof, when transitioning from pediatric to adult healthcare.²² Post-secondary transition in the educational context indicates the individual with disabilities’ move from high school and the education system into living and working as an adult.²²

Research shows how post-secondary transition needs are inadequately addressed for people with disabilities.¹⁻⁵ Rather, authors such as Young et al., McManus et al., Blackman et al., Gabriel et al., and Crowley et al. all display the current implementation gap in successfully supporting students with disabilities.¹⁻⁵ This presents various adverse outcomes, including the many that Gabriel et al. and Crowley et al. found in their systemic reviews to include poor health, decreased health service use, increased “risk for lower-than-expected health literacy, discontinuity of care, delays in securing an adult medical home and specialty care, problems with treatment adherence, dissatisfaction with care, excess morbidity, and even mortality.”^{4,5} Young et al. highlight how program responses to identified post-secondary transition challenges are still only formed on a case-by-case basis and have not translated to widespread initiatives.¹ McManus et al. examined national survey data to discover that most youth with special healthcare needs are not receiving the transition preparation that is needed for post-secondary transition.² Blackman et al. conclude that failures in care coordination that have been identified can create “serious quality-of-life concerns.”³ A systematic review by Gabriel et al. found that youths and young adults with disabilities consistently “receive limited or no transition preparation, transfer assistance, and facilitated integration into adult care.”⁴ A systematic review by Crowley et al. discusses how transfer to adulthood is often disjointed and abrupt, while failing to meet the needs of young people with disabilities.⁵

Considering medical homes, Young et al. explain how the two phases of healthcare of pediatrics and adulthood within the healthcare system vary drastically.¹ Multiple authors note that the transition between the two stages of life is highly challenging for people with disabilities.¹⁻³ Young et al. cites one difference between pediatric and adult healthcare to be adult care no longer including access to specialty and expertise providers or the use of interdisciplinary

care teams.¹ Additionally, they note that for patients, it can be difficult to accept change as transitioning to new healthcare providers requires leaving the familiar to enter uncomfortable territory.¹ However, there is evidence that successful transition interventions can be implemented to effectively improve quality of life.⁴ This benefits population health by positively influencing the specific demographic of individuals with disabilities.⁴

A review of the literature reveals that post-secondary transition for students with disabilities, specifically in transitioning healthcare from pediatrics to adulthood, can be optimized using various intervention strategies.¹⁻⁸ These include:¹⁻⁸

- receiving anticipatory guidance in the transition to adulthood
- doctors discussing shift to adult provider
- doctors discussing future health care needs
- doctors discussing future insurance needs
- caretakers encouraging the child to take responsibility for his or her health care needs
- physician provided education
- care coordinator involvement
- preparation for transition
- transfer assistance
- integration into adult care
- online transition mentor involvement
- transferring from pediatric to adult clinics
- enacting transition process and policy
- using transition readiness assessments
- self-care/disease education
- utilizing transition clinics
- providing community resource linkages
- disease specific educational programs
- generic education/skills training
- naming transition coordinators
- transition clinic visits
- care coordination

- utilizing joint clinics run by pediatric and adult physicians
- separate young adult clinics
- out of hours phone support
- flexible timing
- enhanced follow up
- transition planning programs which considers specifically addressing ICF-CY domains and creating a holistic transition experience
- annual meetings to review transition planning
- meeting a practitioner from each adults' service they will move to before they transfer
- providing contact from adults' services to give further opportunities to engage if patient does not attend first meeting or appointment after transferring to adult services

The post-secondary transition from pediatrics to adulthood is not just a matter of healthcare, but also many other realms of life. Common themes of best practice in overall post-secondary transition planning according to the literature include:¹⁻³⁰

- student self-determination (social skills training and advocacy)
- ecological approaches in determination of supports needed
- individualized person-centered planning process
- service coordination and interagency collaboration
- access and accommodation (assistive technology)
- postsecondary educational supports and employment supports
- systems change strategies (vocational career education, secondary curriculum reform, inclusion)
- family involvement along the way

A resource compiled by the National Technical Assistance Center on Transition synthesizes evidence to suggest evidence-based practices related to post-secondary transition for students with disabilities.²³ They include recommendations in outcome areas related to education, employment, and independent living.²³ These recommendations include:^{23,26-30}

- student-focused planning practices

- i.e. student involvement in Individualized Education Plan (IEP) meetings for students with disabilities
- student-development (academic, employment, and life skills) practices
 - i.e. anchored instruction, graphic organizers, mnemonics, peer tutoring, schema-based instruction, self-determined learning models of instruction to teach goal attainment, strategy instruction, use of technology, time delay, response prompting, simulations, video modeling

III. Work Preparedness and Readiness for Students with Disabilities

A study by Pacha et al. supports that “for individuals, with or without disabilities, to obtain and maintain employment, they must possess a strong foundation of transferrable and general employability or work-readiness skills.”⁹ Preparation for employment opportunities can be seen as one of the most important elements of post-secondary transition planning for students with disabilities.

A review of the literature indicates that work preparedness and readiness for students with disabilities can be optimized using various intervention strategies.⁸⁻³⁰ These include:⁸⁻³⁰

- structured practical work experience programs
- counseling
- student support
- social skills training
- life skills training
- self-care and independent living skills training
- travel skills training
- vocational skills training
- self-determination interventions
- autonomy and decision-making skills training
- transition planning and services
- mock job interviews

- workplace role-play exercises
- employment training
- job skills training
- employment-related programs
- transition supports
- assistance with resumes
- interview tips
- job leads
- site visits to potential employment or postschool training opportunities
- family supports
- mentoring relationships in the workplace
- student focused planning (involving student in IEP meetings, self-advocacy strategy, self-directed IEP)
- student development (teaching home, work, life, self-advocacy, job-specific, social, communication skills)
- parent and family involvement (teaching family about transition)
- parent expectations education
- providing community-based instruction
- employment preparation programs
- occupational career awareness and exploration
- occupational courses
- work study
- employment-related knowledge and skills training
- academic and vocational learning
- functional curriculum
- career guidance and counseling
- assessment of individual career interests and abilities
- early notification of vocational opportunities
- vocation and regular educators' involvement in individualized planning
- intra- and inter-agency collaboration

- job placement services
- follow-up
- skill development (practical skills, self-confidence and self-awareness, social and communication skills)
- employment-training programs
- counselors linking students to employers
- job interview accommodations
- interview practice
- interview preparation
- using specific job-finding strategies (realistic expectations, networking and connections, and capitalizing on volunteer position and internships, be persistent and assertive, keep applying)
- work-based learning
- paid employment or work experience
- community experiences
- goal setting

The most common interventions found to be successful within the literature included opportunities for structured practical work experiences and job-specific skills training.⁸⁻³⁰ This highlights the need for task-specific training and functional assessment related to work preparedness and readiness.

One example of an effective program includes the Start on Success (SOS) Program.¹⁵ This program consists of individuals receiving job placements in community-based employment with mentor pairing and salaries provided to the individuals.¹⁵ This initiative not only enhanced preparedness for employment through task-specific training, it also provided community-based learning and socialization.¹⁵ Another effective program includes Project SEARCH.²¹ This program is a “unique transition to work program that utilizes partnerships among business, education, vocational rehabilitation, families and community supported employment agencies to teach employment skills and support workers as they learn a new job.”²¹ Project SEARCH allows participants to rotate through at least three internships over one school year with the support of instructors and job coaches.²¹ The program has been successful in its initiative to

“increase skill acquisition and employment outcomes for young people with disabilities,”²¹ even citing rates of 55% of graduates acquiring competitive employment following the program.²¹ Other successful work experience programs seen in the literature were founded with:⁸⁻³⁰

- clear program goals
- clear roles and responsibilities
- training plans that specified learning goals tailored to individual students with specific outcomes connected to student learning
- convenient links between students' schools, and employers
- on-the-job learning
- ranges of work-based learning opportunities
- mentors at the worksite
- clear expectations and feedback to assess progress toward achieving goals
- assessments to identify skills, interests, and support needs at the worksite
- reinforcement of work-based learning outside of work
- appropriate academic, social, and administrative support for all partners
- frequency of working 6-30 hours per week in work experiences¹²

IV. Availability of Evidence and Potential Knowledge Gaps

While a review of the literature reveals awareness of challenges in post-secondary transition for students with disabilities, most of the research is primarily focused on the medical home. The limit in evidence discussing other dynamics of post-secondary transition beyond the transition from pediatrics to adult healthcare indicates an even larger potential knowledge gap related to these areas. One of these areas includes preparation of students with disabilities related to work preparedness and readiness. The aforementioned limited current literature that does exist addresses the issue of work preparedness and readiness in students with disabilities; but does so primarily from a soft skill perspective.

Little research exists examining work preparedness and readiness from a gross motor and physical functioning perspective. The scope of practice of physical therapy has much to offer regarding the development of evaluation tools and interventions to be used to help prepare

students for a post-secondary transition into the workforce. The ability for physical therapy to contribute to optimizing the potential future employment outlooks of students with disabilities is immense. However, evidence is scarce regarding standards of care and practice guidelines on the topic. Approaching functional capacity with a potential for future employment in mind allows for various skills to be intentionally developed and cultivated during the adolescent transitional period, if not earlier. However, the lack of research available contributes to a knowledge gap on the topic. Further research is needed to explore the effectiveness of interventions focused on work preparedness and readiness for students with disabilities.

V. The Problem

The lack of research and resulting knowledge gap discovered through a review of the literature is a problem that should be recognized. One limitation to the existing literature is the poor methodological quality of research. This topic has mainly been studied in qualitative terms. Plus, low level research structures have been used in research studies. However, quantitative studies using formalized outcome measures related to work preparedness could be utilized in randomized controlled trials to research post-secondary transition interventions.

Beyond lack of evidence, there is also a lack of current structures to assist students with disabilities in developing functional skills needed for employment and specific workplace skills. Additionally, there is a lack of impetus on interventions addressing these useful domains for students with disabilities starting from a young age. Though it is needed, evaluation and intervention related to work preparedness is not yet fully established in physical therapy practice.²⁵ Not only is the implementation of work preparedness in plans of care limited as a standard of care, the resources available to assist physical therapists are sporadic, uncoordinated, and disorganized. Therefore, there is not only a need to highlight the pertinence of a focus on work preparedness and beginning post-secondary transition planning from an early age, but also a need to provide supportive resources and compilation of knowledge in order to effectively implement concepts in practice. Only then could strategies for evaluation and intervention related to work preparedness be effectively implemented in physical therapy practice.

A review of the literature distinctly demonstrates that students with disabilities face high unemployment rates and are not adequately supported in post-secondary transition. Clearly, implemented practices, and then resulting research on the effectiveness of those practices, are both needed related to post-secondary transition strategies and plans of care focused on work preparedness for students with disabilities.

VI. The Solution

Physical therapy can help to facilitate a smoother post-secondary transition for students with disabilities by providing referral options, suggesting resources, promoting independence and responsibility in communication with providers for things such as appointments and wheelchair repairs,⁴ fostering self-determination skills,^{23,26} including students in IEP meetings,²⁷ cultivating paid work experiences,³⁰ providing task-specific training, exploring student interests and preferences, utilizing work preparedness related evaluation tools and assessments, implementing post-secondary transition and work preparedness focused interventions, developing plans of care related to work preparedness, and helping to outline and guide important considerations for post-secondary transition. Additionally, research demonstrates how patient education is an important element in successful transition programs.⁵ Physical therapy can utilize transition-oriented goals that anticipate needs in order to prepare for future functional skill sets. Using an ICF model framework,^{6,31} these interventions can be highly relevant and personalized to the individual's transition into new activities and work.⁶ This planning and intervention should be focused on individual's strengths and "promote movement to post-secondary environments" so that they will thrive as they move into the community.⁸

Physical therapy practice should include a component of strategically preparing students with disabilities for job opportunities by intentionally focusing on functional capacity related to work preparedness. Specific plans of care can be tailored based on individualized patient needs and preferences. The development of materials that compile research, knowledge, and potential considerations can positively contribute to the success of physical therapy practice in preparing students with disabilities for post-secondary opportunities. Therefore, a clinician resource guide related to post-secondary transition and work preparedness for students with disabilities, as well

as a compendium of evaluation checklists, tools, and measures related to work preparedness for students with disabilities, should be developed in order to benefit physical therapy clinical practice and optimize opportunities for community engagement for students with disabilities. These materials could be used to inform practice and develop plans of care that prepare the student from a young age by incorporating relevant interventions. They would help to draw focus on the student's authentic interests and preferences, foster their capabilities, and optimize their opportunities as engaged members of the community.

VII. Conclusion

As Healthy People 2020 puts it, “to be healthy, all individuals with or without disabilities must have opportunities to take part in meaningful daily activities that add to their growth, development, fulfillment, and community contribution.”³² Physical therapists should play a role in optimizing the current and future health of students with disabilities by helping to prepare and equip them for meaningful post-secondary opportunities to engage in their communities. While there is a significant gap in the evidence related to physical therapy contributions to the work preparedness and readiness of students with disabilities as a part of transition planning, physical therapy can play an important role in developing functional capacities and skills needed for employment opportunities. Evaluations of work preparedness and interventions focused on preparing students with disabilities for employment opportunities should be implemented in physical therapy practice. Based on evidence, physical therapy interventions should focus on self-determination, task-specific skills training, and other work preparedness related interventions in order to improve functional work capacity.¹⁻³² If successfully implemented from an early age, these physical therapy practices could immensely benefit students with disabilities by providing structure and support for them to progress towards community engagement goals based on unique interests, preferences, strengths, and talents. There is great prospect for physical therapists to consider these topics and contribute to equipping students with disabilities for meaningful post-secondary opportunities so that they are prepared and ready.

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